SEQUENCE LISTING

<110> Verbsky, Michelle L.
      Baublite, Catherine
      Williams, Deryck J.
      Kloek, Andrew P.
      Davila-Aponte, Jennifer A.
      Hresko, Michelle Coutu
      McLaird, Merry B.

<120> NUCLEIC ACIDS ENCODING ANTHELMINTIC
      AGENTS AND PLANTS MADE THEREFROM

<130> 12557-016001

<150> US 60/445,293
<151> 2003-02-05

<160> 130

<170> FastSEQ for Windows Version 4.0

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gag aag aaa gga gga agc agc cac ctt aag cga gcg ccg cac acg aag         96
Glu Lys Lys Gly Gly Ser Ser His Leu Lys Arg Ala Pro His Thr Lys
             20                  25                  30

cct cct ttc aca ctt ggt gac ctc aag aga gcc atc cca ccc cat tgc        144
Pro Pro Phe Thr Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys
         35                  40                  45

ttt gaa cgc tct ttt gtg cgc tca ttc tcc tat gtt gcc tat gat gtc        192
Phe Glu Arg Ser Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val
     50                  55                  60

tgc tta agt ttt ctt ttc tac tcg atc gcc acc aac ttc ttc cct tac        240
Cys Leu Ser Phe Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr
 65                  70                  75                  80

atc tct tct ccg ctc tcg tat gtc gct tgg ctg gtt tac tgg ctc ttc        288
Ile Ser Ser Pro Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe
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caa ggc tgc att ctc act ggt ctt tgg gtc atc ggc cat gaa tgt ggc        336
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Gln Gly Cys Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly
            100                 105                 110

cat cat gct ttt agt gag tat cag ctg gct gat gac att gtt ggc cta       384
His His Ala Phe Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu
        115                 120                 125

att gtc cat tct gca ctt ctg gtt cca tat ttt tca tgg aaa tat agc       432
Ile Val His Ser Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser
    130                 135                 140

cat cgc cgc cac cat tct aac ata gga tct ctc gag cga gac gaa gtg       480
His Arg Arg His His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val
145                 150                 155                 160

ttc gtc ccg aaa tca aag tcg aaa att tca tgg tat tct aag tac tta       528
Phe Val Pro Lys Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu
                165                 170                 175

aac aac ccg cca ggt cga gtt ttg aca ctt gct gcc acg ctc ctc ctt       576
Asn Asn Pro Pro Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu
            180                 185                 190

ggc tgg cct tta tac tta gct ttc aat gtc tct ggt aga cct tac gat       624
Gly Trp Pro Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp
        195                 200                 205

cgc ttt gct tgc cat tat gat ccc tat ggc cca ata ttt tcc gaa aga       672
Arg Phe Ala Cys His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg
    210                 215                 220

gaa agg ctt cag att tac att gct gac ctc gga atc ttt gcc aca acg       720
Glu Arg Leu Gln Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr
225                 230                 235                 240

ttt gtg ctt tat cag gct aca atg gca aaa ggg ttg gct tgg gta atg       768
Phe Val Leu Tyr Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met
                245                 250                 255

cgt atc tat ggg gtg cca ttg ctt att gtt aac tgt ttc ctt gtt atg       816
Arg Ile Tyr Gly Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met
            260                 265                 270

atc aca tac ttg cag cac act cac cca gct att cca cgc tat ggc tca       864
Ile Thr Tyr Leu Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser
        275                 280                 285

tcg gaa tgg gat tgg ctc cgg gga gca atg gtg act gtc gat aga gat       912
Ser Glu Trp Asp Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp
    290                 295                 300

tat ggg gtg ttg aat aaa gta ttc cat aac att gca gac act cat gta       960
Tyr Gly Val Leu Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val
305                 310                 315                 320

gct cat cat ctc ttt gct aca gtg cca cat tac cat gca atg gag gcc      1008
Ala His His Leu Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala
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                325                 330                 335

act aaa gca atc aag cct ata atg ggt gag tat tac cgg tat gat ggt     1056
Thr Lys Ala Ile Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly
            340                 345                 350

acc cca ttt tac aag gca ttg tgg agg gag gca aag gag tgc ttg ttc     1104
Thr Pro Phe Tyr Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe
        355                 360                 365

gtc gag cca gat gaa gga gct cct aca caa ggc gtt ttc tgg tac cgg     1152
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    370                 375                 380

aac aag tat taa                                                     1164
Asn Lys Tyr
385

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Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                   10                  15

gaa act gaa gcc cta aaa cgt gga cca tgt gag aaa cca cca ttc act       96
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
             20                  25                  30

gtt aaa gat ctg aag aaa gca atc cca cag cat tgt ttt cag cgc tct      144
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
         35                  40                  45

atc cct cgt tct ttc tcc tac ctt ctc aca gat atc act tta gtt tct      192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
     50                  55                  60

tgc ttc tac tac gtt gcc aca aat tac ttc tct ctt ctt cct cag cct      240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
 65                  70                  75                  80

ctc tct act tac cta gct tgg cct ctc tat tgg gta tgt caa ggc tgt      288
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                 85                  90                  95

gtc tta aca ggt atc tgg gtc att ggc cat gaa tgt ggt cac cat gca      336
Val Leu Thr Gly Ile Trp Val Ile Gly His Glu Cys Gly His His Ala
            100                 105                 110

ttc agt gac tat caa tgg gta gat gac act gtt ggt ttt atc ttc cat      384
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Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Phe His
        115                 120                 125

tcc ttc ctt ctc gtc cct tac ttc tcc tgg aaa tac agt cat cgt cgt       432
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140

cac cat tcc aac aat gga tct ctc gag aaa gat gaa gtc ttt gtc cca       480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160

ccg aaa aaa gct gca gtc aaa tgg tat gtt aaa tac ctc aac aac cct       528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175

ctt gga cgc att ctg gtg tta aca gtt cag ttt atc ctc ggg tgg cct       576
Leu Gly Arg Ile Leu Val Leu Thr Val Gln Phe Ile Leu Gly Trp Pro
            180                 185                 190

ttg tat cta ccc ttt aat gta tca ggt aga cct tat gat ggt ttc gct       624
Leu Tyr Leu Pro Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205

tca cat ttc ttc cct cat gca cct atc ttt aaa gac cgc gaa cgt ctc       672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220

cag ata tac atc tca gat gct ggt att cta gct gtc tgt tat ggt ctt       720
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240

tac cgt tac gct gct tca caa gga ttg act gct atg atc tgc gtc tat       768
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255

gga gta ccg ctt ttg ata gtg aac ttt ttc ctt gtc ttg gta act ttc       816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270

ttg cag cac act cat cct tcg tta cct cac tat gat tca acc gag tgg       864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285

gaa tgg att aga gga gct ttg gtt acg gta gac aga gac tat gga atc       912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300

ttg aac aag gtg ttt cac aac ata aca gac aca cat gtg gct cat cat       960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320

ctc ttt gca act ata ccg cat tat aac gca atg gaa gct aca gag gcg      1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335

ata aag cca ata ctt ggt gat tac tac cac ttc gat gga aca ccg tgg      1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
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            340                 345                 350

tat gtg gcc atg tat agg gaa gca aag gag tgt ctc tat gta gaa ccg      1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
        355                 360                 365

gat acg gaa cgt ggg aag aaa ggt gtg tac tat tac aac aat aag tta      1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

tga                                                                  1155

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aaa cct gaa gcc cta aga cgt ggg cca ggt gag aaa cca cca ttc act        96
Lys Pro Glu Ala Leu Arg Arg Gly Pro Gly Glu Lys Pro Pro Phe Thr
             20                  25                  30

gtt caa gat cta agg aaa gca atc cca cgg cat tgt ttc aaa cgc tct       144
Val Gln Asp Leu Arg Lys Ala Ile Pro Arg His Cys Phe Lys Arg Ser
         35                  40                  45

atc cct cgt tct ttc tcc tat ctt ctc aca gat atc att tta gct tct       192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Ile Leu Ala Ser
     50                  55                  60

tgc ttc tac tac gtg gcc acc aat tac ttc tca ctt ctt cca cag cct       240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                   70                  75                  80

ctc tct act tac ttt gct tgg cct ctc tat tgg gta tgt caa ggc tgt       288
Leu Ser Thr Tyr Phe Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                 85                  90                  95

gtc tta acc ggt gtt tgg gtc ctt ggc cat gaa tgt ggt cac caa gca       336
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His Gln Ala
            100                 105                 110

ttt agt gac tat caa tgg gta gat gac act gtt ggt ttt atc atc cat       384
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
        115                 120                 125

acc ttc ctc ctc atc cct tac ttc tcc tgg aag tat agt cat cgt cgt       432
Thr Phe Leu Leu Ile Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140
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cac cat gcc aat aat gga tca ctc gag aga gat gaa gtc ttt gtc cca        480
His His Ala Asn Asn Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro
145                 150                 155                 160

ccg aag aaa gct gca gtc aaa tgg tat gtc aaa tac ctc aac aac cct        528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175

ctt gga cgc act gtg gtg tta ata gtc cag ttt gtc ctc gga tgg ccc        576
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
            180                 185                 190

ttg tac cta gcc ttt aac gta tca ggt aga tcc tat gat ggt ttc gct        624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Ser Tyr Asp Gly Phe Ala
        195                 200                 205

tca cat ttc ttc cca cat gca ccc atc ttc aag gac cga gaa cgt ctc        672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220

cat ata tac atc aca gat gct ggt att cta gct gtc tgt tat ggt ctt        720
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240

tac cgt tac gca gct aca aaa gga ttg acc gct atg atc tgc gtc tat        768
Tyr Arg Tyr Ala Ala Thr Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255

ggg gta cct cct ctg gtt gta aac ttt ttc ctt gtc ttg gtc act ttc        816
Gly Val Pro Pro Leu Val Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270

ttg cag cac act cat cct tca tta cct cac tat gat tca acc gag tgg        864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285

gac tgg att aga gga gcc atg gtt aca gta gac aga gac tat ggg atc        912
Asp Trp Ile Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300

ttg aac aag gtg ttc cac aac ata aca gac aca cat gtg gct cat cat        960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320

ctt ttc gca aca ata ccg cat tat aat gca atg gaa gct aca gag gcg       1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335

ata aag cca ata ctc gga gac tac tac cat ttc gat gga aca ccc tgg       1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350

tat gtg gct atg tat agg gaa gca aag cag tgt ctc tat gta gaa cag       1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Gln Cys Leu Tyr Val Glu Gln
        355                 360                 365
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gat aca gaa aag aag aaa ggt gtc tac tat tac aac aat aag tta         1149
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    370                 375                 380

tga                                                                 1152

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Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                   10                  15

aaa cct caa gcc cta aga cgt gga cca tgt gag aaa cca cca ttc act       96
Lys Pro Gln Ala Leu Arg Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
             20                  25                  30

gtt aaa gat ctg aag aaa gca atc cca ccg cat tgt ttc aaa cgc tct      144
Val Lys Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser
         35                  40                  45

atc cct cgc tct ttc tct tac ctt ctc aca gat ttc att cta gct tct      192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Phe Ile Leu Ala Ser
     50                  55                  60

tgc ttc tac tac gtg gct aca aat tac ttc tct ctt ctc cca cag cct      240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
 65                  70                  75                  80

gtc tct aat tac ctg gct tgg cct ctc tat tgg ata tgt caa ggc tgt      288
Val Ser Asn Tyr Leu Ala Trp Pro Leu Tyr Trp Ile Cys Gln Gly Cys
                 85                  90                  95

gtc tta acc ggt gtt tgg gtc ctt ggc cat gaa tgt ggt cac cat gca      336
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His His Ala
            100                 105                 110

ttc agt gac tat caa tgg gta gat gac act gtt ggt ttt atc atc cat      384
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
        115                 120                 125

tcc ttc ctc ctt gtc cct tac ttc tcc tgg aag tac agt cat cgt cgt      432
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140

cac cat tcc aac aat gga tcc ctc gag aaa gat gaa gtc ttt gtt cca      480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160

cct aag aaa gct gca gtc aaa tgg tat gtt aag tac ctc aac aac cct      528
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Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175

ctt gga cgc act gtg gtg tta ata gtc cag ttt gtc ctc ggg tgg cct          576
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
        180                 185                 190

ttg tat cta gcc ttt aac gta tca ggt aga ccc tat gat ggg ttc gct          624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
    195                 200                 205

tca cac ttc ttt cct cat gca ccc atc ttc agg gac cgt gaa cgc ctc          672
Ser His Phe Phe Pro His Ala Pro Ile Phe Arg Asp Arg Glu Arg Leu
    210                 215                 220

cat ata tac atc aca gat gct ggt att cta gct gtc tgt tat ggt ctt          720
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240

tac cgt tac gct gct tca aaa gga ttg acc gct atg atc tgc gtc tac          768
Tyr Arg Tyr Ala Ala Ser Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255

gga gta ccg ctt ttg ata gtg aac ttt ttc ctc gtg ttg gtc act ttc          816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
        260                 265                 270

ttg cag cac act cat cct tca tta cct cac tat gat tca acc gag tgg          864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
    275                 280                 285

gaa tgg att aga gga gcc ttg gtt aca gta gac aga gac tat gga atc          912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300

ttg aac aag gtg ttc cac aac ata aca gac aca cat gtg gct cat cat          960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320

att ttc gca aca ata ccg cat tat aat gca atg gaa gct aca gag gcg         1008
Ile Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335

ata aag cca ata ctc gga gac tac tac cat ttc gat gga aca ccg tgg         1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
        340                 345                 350

tat gtg gcc atg tac agg gaa gca aag gag tgt ctc tat gta gaa cag         1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Gln
    355                 360                 365

gat aca gaa cgt ggg aag aaa ggt gtc tac tat tac aac aat aag tta         1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

tga                                                                     1155
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Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                   10                  15

gaa act gaa gcc cta aaa cgt gga cca tgt gag aaa cca cca ttc act        96
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
             20                  25                  30

gtt aaa gat ctg aag aaa gca atc cca cag cat tgt ttt caa cgc tct       144
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
         35                  40                  45

atc cct cgt tct ttc tcc tac ctt ctc aca gat atc act tta gtt tct       192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
     50                  55                  60

tgc ttc tac tac gtt gcc aca aat tac ttc tct ctt ctt cct cag cct       240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
 65                  70                  75              80

ctc tct act tac cta gct tgg cct ctc tat tgg gta tgt caa ggc tgt       288
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                 85                  90                  95

gtc cta aca ggt atc tgg gtc ctt ggc cat gaa tgt ggt cac cat gca       336
Val Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala
            100                 105                 110

ttc agt gac tat caa tgg cta gat gac act gtt ggt ttt atc ttc cat       384
Phe Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His
        115                 120                 125

tcc tta ctt ctc gtc cct tac ttc tcc tgg aaa tac agt cat cgt cgt       432
Ser Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140

cac cat tcc aac aat gga tct ctc gag aaa gat gaa gtc ttt gtc cca       480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155             160

ccg aaa aaa gct gca gtc aaa tgg tat gtt aaa tac ctc aac aac cct       528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175

ctt gga cgc att ctg gtg tta aca gtt cgg ttt atc ctc ggg tgg cct       576
Leu Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro
            180                 185                 190
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ttg tat cta gcc ttt aat gta tca ggt aga cct tat gat ggt ttc gct      624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205

tca cat ttc ttc cct cat gca cct atc ttt aaa gac cgc gaa cgt ctc      672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220

cag ata tac atc tca gat gct ggt att cta gct gtc tgt tat ggt ctt      720
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240

tac cgt tac gct gct tca caa gga ttg acc gct atg atc tgc gtc tat      768
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255

gga gta ccg ctt ttg ata gtg aac ttt ttc ctt gtc ttg gta act ttc      816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270

ttg cag cac act cat cct tcg tta cct cac tat gat tca acc gag tgg      864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285

gaa tgg att aga gga gct ttg gtt acg gta gac aga gac tac gga atc      912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300

ttg aac aag gtg ttt cac aac ata aca gac aca cat gtg gct cat cat      960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320

ctt ttc gca act ata ccg cat tat aac gca atg gaa gct aca gag gcg     1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335

ata aag cca ata ctt ggt gat tac tac cat ttc gat gga aca ccg tgg     1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350

tat gtg gct atg tat agg gaa gca aag gag tgt ctc tat gta gaa ccg     1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
        355                 360                 365

gat acg gaa cgt ggg aag aaa ggt gtc tac tat tac aac aat aag tta     1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

tga                                                                 1155

<210> 6
<211> 1125
<212> DNA
<213> Crepis biennis

<220>
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<221> CDS
<222> (1)...(1122)

<400> 6
atg ggt gcc cac ggc cat ggt cga aca tcg aaa aaa tcg gtc atg gaa      48
Met Gly Ala His Gly His Gly Arg Thr Ser Lys Lys Ser Val Met Glu
 1               5                   10                  15

cgt gtc tcg gtt gat cca gta ccc ttc tcg cta agt gat tta aag caa      96
Arg Val Ser Val Asp Pro Val Pro Phe Ser Leu Ser Asp Leu Lys Gln
             20                  25                  30

gca atc cct ccc cat tgc ttc cag cga tct gtc atc cgt tca tct tac     144
Ala Ile Pro Pro His Cys Phe Gln Arg Ser Val Ile Arg Ser Ser Tyr
         35                  40                  45

tat gta gtt cac gat ctc att att gcc tac atc ttc tac ttc ctt gcc     192
Tyr Val Val His Asp Leu Ile Ile Ala Tyr Ile Phe Tyr Phe Leu Ala
     50                  55                  60

gat aaa tat att ccg att ctc cct gct cct cta gcc tac tta gct tgg     240
Asp Lys Tyr Ile Pro Ile Leu Pro Ala Pro Leu Ala Tyr Leu Ala Trp
 65                  70                  75                  80

ccc ctt tac tgg ttc tgt caa gct agc atc ctc act ggt tta tgg atc     288
Pro Leu Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp Ile
                 85                  90                  95

ctc ggt cat gaa tgc ggt cac cat gcc ttt agc gag tac caa tgg gtt     336
Leu Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp Val
            100                 105                 110

gac gac act gtg ggc ttc atg gtc cac tca ttt ctc ctc acc ccg tat     384
Asp Asp Thr Val Gly Phe Met Val His Ser Phe Leu Leu Thr Pro Tyr
        115                 120                 125

ttc tcg tgg aaa tac agt cac cgg aat cac cat gcc aac aca agt tcc     432
Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Ser Ser
    130                 135                 140

atc gat aac gat gaa gtt tac att ccg aaa agc aag tcc aaa ctc gcg     480
Ile Asp Asn Asp Glu Val Tyr Ile Pro Lys Ser Lys Ser Lys Leu Ala
145                 150                 155                 160

ctt acc tat aaa ctt ctt aac aac ccg cct ggt cga ctg tta gtt atg     528
Leu Thr Tyr Lys Leu Leu Asn Asn Pro Pro Gly Arg Leu Leu Val Met
                165                 170                 175

gtt atc atg ttc acc cta gga ttt cct tta tac ctc ttg aca aat att     576
Val Ile Met Phe Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn Ile
            180                 185                 190

tcc ggc aag aag tac gac agg ttt gcc aac cac ttc gac ccc atg agt     624
Ser Gly Lys Lys Tyr Asp Arg Phe Ala Asn His Phe Asp Pro Met Ser
        195                 200                 205

cca att ttc aag gaa cgt gag cgg ttt cag gtc ttg ctt tcg gat ctt     672
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```
Pro Ile Phe Lys Glu Arg Glu Arg Phe Gln Val Leu Leu Ser Asp Leu
    210                 215                 220

ggc ctt ctt gct gtg ttt tat gga att aaa gtt gct gta gca aag aaa       720
Gly Leu Leu Ala Val Phe Tyr Gly Ile Lys Val Ala Val Ala Lys Lys
225                 230                 235                 240

gga gct gcg tgg gtg gcg tgt atg tat gga gtt ccg atg cta ggc gta       768
Gly Ala Ala Trp Val Ala Cys Met Tyr Gly Val Pro Met Leu Gly Val
                245                 250                 255

ttt acc ctt ttc gat atc atc acg tac ttg cac cac acc cat cag tcg       816
Phe Thr Leu Phe Asp Ile Ile Thr Tyr Leu His His Thr His Gln Ser
            260                 265                 270

tct cct cat tat gac tca act gaa tgg aac tgg atc aga ggg gcg ttg       864
Ser Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala Leu
        275                 280                 285

tca gca atc gat agg gac ttt ggg ttc atg aat agt gtt ttc cat gat       912
Ser Ala Ile Asp Arg Asp Phe Gly Phe Met Asn Ser Val Phe His Asp
    290                 295                 300

gtt aca cac act cac gtc atg cat cat atg ttt tca tac att cca cac       960
Val Thr His Thr His Val Met His His Met Phe Ser Tyr Ile Pro His
305                 310                 315                 320

tat cat gcg aaa gag gca agg gat gca atc aat aca atc ata ggc gac      1008
Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Asn Thr Ile Ile Gly Asp
                325                 330                 335

tat tat atg atc gat agg act cca att ttg aaa gca ctg tgg aga gag      1056
Tyr Tyr Met Ile Asp Arg Thr Pro Ile Leu Lys Ala Leu Trp Arg Glu
            340                 345                 350

gcc aag gaa tgc atg tac atc gag cct gat agc aag cgc aaa ggt gta      1104
Ala Lys Glu Cys Met Tyr Ile Glu Pro Asp Ser Lys Arg Lys Gly Val
        355                 360                 365

tat tgg tac cat aaa ttg tga                                          1125
Tyr Trp Tyr His Lys Leu
    370

<210> 7
<211> 1152
<212> DNA
<213> Ricinus communis

<220>
<221> CDS
<222> (1)...(1149)

<400> 7
atg ggt gca ggt gga aga atg ccg gtt cct act tct tcc aag aaa tcg        48
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                  10                  15
```

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gaa acc gac acc aca aag cgt gtg ccg tgc gag aaa ccg cct ttc tcg         96
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
             20                  25                  30

gtg gga gat ctg aag aaa gcc atc cca ccc cat tgc ttt gaa cgc tct        144
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Glu Arg Ser
         35                  40                  45

ttt gtg cgc tca ttc tcc tat gtt gcc tat gat gtc tgc tta agt ttt        192
Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val Cys Leu Ser Phe
     50                  55                  60

ctt ttc tac tcg atc gcc acc aac ttc ttc cct tac atc tct tct ccg        240
Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr Ile Ser Ser Pro
 65                  70                  75                  80

ctc tcg tat gtc gct tgg ctg gtt tac tgg ctc ttc caa ggc tgc att        288
Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe Gln Gly Cys Ile
                 85                  90                  95

ctc act ggt ctt tgg gtc atc ggc cat gaa tgt ggc cat cat gct ttt        336
Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly His His Ala Phe
            100                 105                 110

agt gag tat cag ctg gct gat gac att gtt ggc cta att gtc cat tct        384
Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu Ile Val His Ser
        115                 120                 125

gca ctt ctg gtt cca tat ttt tca tgg aaa tat agc cat cgc cgc cac        432
Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130                 135                 140

cat tct aac ata gga tct ctc gag cga gac gaa gtg ttc gtc ccg aaa        480
His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                 150                 155                 160

tca aag tcg aaa att tca tgg tat tct aag tac tta aac aac ccg cca        528
Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu Asn Asn Pro Pro
                165                 170                 175

ggt cga gtt ttg aca ctt gct gcc acg ctc ctc ctt ggc tgg cct tta        576
Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu Gly Trp Pro Leu
            180                 185                 190

tac tta gct ttc aat gtc tct ggt aga cct tac gat cgc ttt gct tgc        624
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Arg Phe Ala Cys
        195                 200                 205

cat tat gat ccc tat ggc cca ata ttt tcc gaa aga gaa agg ctt cag        672
His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg Glu Arg Leu Gln
    210                 215                 220

att tac att gct gac ctc gga atc ttt gcc aca acg ttt gtg ctt tat        720
Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr Phe Val Leu Tyr
225                 230                 235                 240

cag gct aca atg gca aaa ggg ttg gct tgg gta atg cgt atc tat ggg        768
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```
Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met Arg Ile Tyr Gly
                245                 250                 255

gtg cca ttg ctt att gtt aac tgt ttc ctt gtt atg atc aca tac ttg       816
Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met Ile Thr Tyr Leu
            260                 265                 270

cag cac act cac cca gct att cca cgc tat ggc tca tcg gaa tgg gat       864
Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser Ser Glu Trp Asp
        275                 280                 285

tgg ctc cgg gga gca atg gtg act gtc gat aga gat tat ggg gtg ttg       912
Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Val Leu
    290                 295                 300

aat aaa gta ttc cat aac att gca gac act cat gta gct cat cat ctc       960
Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val Ala His His Leu
305                 310                 315                 320

ttt gct aca gtg cca cat tac cat gca atg gag gcc act aaa gca atc      1008
Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile
                325                 330                 335

aag cct ata atg ggt gag tat tac cgg tat gat ggt acc cca ttt tac      1056
Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly Thr Pro Phe Tyr
            340                 345                 350

aag gca ttg tgg agg gag gca aag gag tgc ttg ttc gtc gag cca gat      1104
Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe Val Glu Pro Asp
        355                 360                 365

gaa gga gct cct aca caa ggc gtt ttc tgg tac cgg aac aag tat          1149
Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg Asn Lys Tyr
    370                 375                 380

taa                                                                  1152

<210> 8
<211> 1155
<212> DNA
<213> Lesquerella fendleri

<220>
<221> CDS
<222> (1)...(1152)

<400> 8
atg ggt gca ggt gga aga atg ccg gtt cct act tct tcc aag aaa tcg        48
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                  10                  15

gaa acc gac acc aca aag cgt gtg ccg tgc gag aaa ccg cct ttc tcg        96
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
             20                  25                  30

gtg gga gat ctg aag aaa gca atc cca cag cat tgt ttt cag cgc tct       144
Val Gly Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
```

```
         35                  40                  45

atc cct cgt tct ttc tcc tac ctt ctc aca gat atc act tta gtt tct       192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
     50                  55                  60

tgc ttc tac tac gtt gcc aca aat tac ttc tct ctt ctt cct cag cct       240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
 65                  70                  75                  80

ctc tct act tac cta gct tgg cct ctc tat tgg gta tgt caa ggc tgt       288
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                 85                  90                  95

gtc tta aca ggt atc tgg gtc att ggc cat gaa tgt ggt cac cat gca       336
Val Leu Thr Gly Ile Trp Val Ile Gly His Glu Cys Gly His His Ala
            100                 105                 110

ttc agt gac tat caa tgg gta gat gac act gtt ggt ttt atc ttc cat       384
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Phe His
        115                 120                 125

tcc ttc ctt ctc gtc cct tac ttc tcc tgg aaa tac agt cat cgt cgt       432
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140

cac cat tcc aac aat gga tct ctc gag aaa gat gaa gtc ttt gtc cca       480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160

ccg aaa aaa gct gca gtc aaa tgg tat gtt aaa tac ctc aac aac cct       528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175

ctt gga cgc att ctg gtg tta aca gtt cag ttt atc ctc ggg tgg cct       576
Leu Gly Arg Ile Leu Val Leu Thr Val Gln Phe Ile Leu Gly Trp Pro
            180                 185                 190

ttg tat cta ccc ttt aat gta tca ggt aga cct tat gat ggt ttc gct       624
Leu Tyr Leu Pro Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205

tca cat ttc ttc cct cat gca cct atc ttt aaa gac cgc gaa cgt ctc       672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220

cag ata tac atc tca gat gct ggt att cta gct gtc tgt tat ggt ctt       720
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240

tac cgt tac gct gct tca caa gga ttg act gct atg atc tgc gtc tat       768
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255

gga gta ccg ctt ttg ata gtg aac ttt ttc ctt gtc ttg gta act ttc       816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
```

```
ttg cag cac act cat cct tcg tta cct cac tat gat tca acc gag tgg      864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285

gaa tgg att aga gga gct ttg gtt acg gta gac aga gac tat gga atc      912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300

ttg aac aag gtg ttt cac aac ata aca gac aca cat gtg gct cat cat      960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320

ctc ttt gca act ata ccg cat tat aac gca atg gaa gct aca gag gcg     1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335

ata aag cca ata ctt ggt gat tac tac cac ttc gat gga aca ccg tgg     1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350

tat gtg gcc atg tat agg gaa gca aag gag tgt ctc tat gta gaa ccg     1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
        355                 360                 365

gat acg gaa cgt ggg aag aaa ggt gtg tac tat tac aac aat aag tta     1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

tga                                                                 1155

<210> 9
<211> 1152
<212> DNA
<213> Lesquerella lindheimeri

<220>
<221> CDS
<222> (1)...(1149)

<400> 9
atg ggt gca ggt gga aga atg ccg gtt cct act tct tcc aag aaa tcg       48
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                   10                  15

gaa acc gac acc aca aag cgt gtg ccg tgc gag aaa ccg cct ttc tcg       96
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
             20                  25                  30

gtg gga gat cta agg aaa gca atc cca cgg cat tgt ttc aaa cgc tct      144
Val Gly Asp Leu Arg Lys Ala Ile Pro Arg His Cys Phe Lys Arg Ser
         35                  40                  45

atc cct cgt tct ttc tcc tat ctt ctc aca gat atc att tta gct tct      192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Ile Leu Ala Ser
     50                  55                  60
```

```
tgc ttc tac tac gtg gcc acc aat tac ttc tca ctt ctt cca cag cct      240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
 65                  70                  75                  80

ctc tct act tac ttt gct tgg cct ctc tat tgg gta tgt caa ggc tgt      288
Leu Ser Thr Tyr Phe Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                 85                  90                  95

gtc tta acc ggt gtt tgg gtc ctt ggc cat gaa tgt ggt cac caa gca      336
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His Gln Ala
            100                 105                 110

ttt agt gac tat caa tgg gta gat gac act gtt ggt ttt atc atc cat      384
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
        115                 120                 125

acc ttc ctc ctc atc cct tac ttc tcc tgg aag tat agt cat cgt cgt      432
Thr Phe Leu Leu Ile Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140

cac cat gcc aat aat gga tca ctc gag aga gat gaa gtc ttt gtc cca      480
His His Ala Asn Asn Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro
145                 150                 155                 160

ccg aag aaa gct gca gtc aaa tgg tat gtc aaa tac ctc aac aac cct      528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175

ctt gga cgc act gtg gtg tta ata gtc cag ttt gtc ctc gga tgg ccc      576
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
            180                 185                 190

ttg tac cta gcc ttt aac gta tca ggt aga tcc tat gat ggt ttc gct      624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Ser Tyr Asp Gly Phe Ala
        195                 200                 205

tca cat ttc ttc cca cat gca ccc atc ttc aag gac cga gaa cgt ctc      672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220

cat ata tac atc aca gat gct ggt att cta gct gtc tgt tat ggt ctt      720
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240

tac cgt tac gca gct aca aaa gga ttg acc gct atg atc tgc gtc tat      768
Tyr Arg Tyr Ala Ala Thr Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255

ggg gta cct cct ctg gtt gta aac ttt ttc ctt gtc ttg gtc act ttc      816
Gly Val Pro Pro Leu Val Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270

ttg cag cac act cat cct tca tta cct cac tat gat tca acc gag tgg      864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285

gac tgg att aga gga gcc atg gtt aca gta gac aga gac tat ggg atc      912
```

```
Asp Trp Ile Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300

ttg aac aag gtg ttc cac aac ata aca gac aca cat gtg gct cat cat       960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320

ctt ttc gca aca ata ccg cat tat aat gca atg gaa gct aca gag gcg      1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335

ata aag cca ata ctc gga gac tac tac cat ttc gat gga aca ccc tgg      1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350

tat gtg gct atg tat agg gaa gca aag cag tgt ctc tat gta gaa cag      1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Gln Cys Leu Tyr Val Glu Gln
        355                 360                 365

gat aca gaa aag aag aaa ggt gtc tac tat tac aac aat aag tta          1149
Asp Thr Glu Lys Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

tga                                                                  1152

<210> 10
<211> 1155
<212> DNA
<213> Lesquerella gracilis A

<220>
<221> CDS
<222> (1)...(1152)

<400> 10
atg ggt gca ggt gga aga atg ccg gtt cct act tct tcc aag aaa tcg        48
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                  10                  15

gaa acc gac acc aca aag cgt gtg ccg tgc gag aaa ccg cct ttc tcg        96
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
             20                  25                  30

gtg gga gat ctg aag aaa gca atc cca ccg cat tgt ttc aaa cgc tct       144
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser
         35                  40                  45

atc cct cgc tct ttc tct tac ctt ctc aca gat ttc att cta gct tct       192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Phe Ile Leu Ala Ser
     50                  55                  60

tgc ttc tac tac gtg gct aca aat tac ttc tct ctt ctc cca cag cct       240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
 65                  70                  75                  80

gtc tct aat tac ctg gct tgg cct ctc tat tgg ata tgt caa ggc tgt       288
Val Ser Asn Tyr Leu Ala Trp Pro Leu Tyr Trp Ile Cys Gln Gly Cys
```

```
                 85                  90                  95

gtc tta acc ggt gtt tgg gtc ctt ggc cat gaa tgt ggt cac cat gca      336
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His His Ala
            100                 105                 110

ttc agt gac tat caa tgg gta gat gac act gtt ggt ttt atc atc cat      384
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
        115                 120                 125

tcc ttc ctc ctt gtc cct tac ttc tcc tgg aag tac agt cat cgt cgt      432
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140

cac cat tcc aac aat gga tcc ctc gag aaa gat gaa gtc ttt gtt cca      480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160

cct aag aaa gct gca gtc aaa tgg tat gtt aag tac ctc aac aac cct      528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175

ctt gga cgc act gtg gtg tta ata gtc cag ttt gtc ctc ggg tgg cct      576
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
            180                 185                 190

ttg tat cta gcc ttt aac gta tca ggt aga ccc tat gat ggg ttc gct      624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205

tca cac ttc ttt cct cat gca ccc atc ttc agg gac cgt gaa cgc ctc      672
Ser His Phe Phe Pro His Ala Pro Ile Phe Arg Asp Arg Glu Arg Leu
    210                 215                 220

cat ata tac atc aca gat gct ggt att cta gct gtc tgt tat ggt ctt      720
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240

tac cgt tac gct gct tca aaa gga ttg acc gct atg atc tgc gtc tac      768
Tyr Arg Tyr Ala Ala Ser Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255

gga gta ccg ctt ttg ata gtg aac ttt ttc ctc gtg ttg gtc act ttc      816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270

ttg cag cac act cat cct tca tta cct cac tat gat tca acc gag tgg      864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285

gaa tgg att aga gga gcc ttg gtt aca gta gac aga gac tat gga atc      912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300

ttg aac aag gtg ttc cac aac ata aca gac aca cat gtg gct cat cat      960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
```

```
att ttc gca aca ata ccg cat tat aat gca atg gaa gct aca gag gcg      1008
Ile Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335

ata aag cca ata ctc gga gac tac tac cat ttc gat gga aca ccg tgg      1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350

tat gtg gcc atg tac agg gaa gca aag gag tgt ctc tat gta gaa cag      1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Gln
        355                 360                 365

gat aca gaa cgt ggg aag aaa ggt gtc tac tat tac aac aat aag tta      1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

tga                                                                  1155

<210> 11
<211> 1155
<212> DNA
<213> Lesquerella gracilis B

<220>
<221> CDS
<222> (1)...(1152)

<400> 11
atg ggt gca ggt gga aga atg ccg gtt cct act tct tcc aag aaa tcg        48
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                  10                  15

gaa acc gac acc aca aag cgt gtg ccg tgc gag aaa ccg cct ttc tcg        96
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
             20                  25                  30

gtg gga gat ctg aag aaa gca atc cca cag cat tgt ttt caa cgc tct       144
Val Gly Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
         35                  40                  45

atc cct cgt tct ttc tcc tac ctt ctc aca gat atc act tta gtt tct       192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
     50                  55                  60

tgc ttc tac tac gtt gcc aca aat tac ttc tct ctt ctt cct cag cct       240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
 65                  70                  75                  80

ctc tct act tac cta gct tgg cct ctc tat tgg gta tgt caa ggc tgt       288
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                 85                  90                  95

gtc cta aca ggt atc tgg gtc ctt ggc cat gaa tgt ggt cac cat gca       336
Val Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala
            100                 105                 110
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ttc agt gac tat caa tgg cta gat gac act gtt ggt ttt atc ttc cat        384
Phe Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His
        115                 120                 125

tcc tta ctt ctc gtc cct tac ttc tcc tgg aaa tac agt cat cgt cgt        432
Ser Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140

cac cat tcc aac aat gga tct ctc gag aaa gat gaa gtc ttt gtc cca        480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160

ccg aaa aaa gct gca gtc aaa tgg tat gtt aaa tac ctc aac aac cct        528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175

ctt gga cgc att ctg gtg tta aca gtt cgg ttt atc ctc ggg tgg cct        576
Leu Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro
            180                 185                 190

ttg tat cta gcc ttt aat gta tca ggt aga cct tat gat ggt ttc gct        624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205

tca cat ttc ttc cct cat gca cct atc ttt aaa gac cgc gaa cgt ctc        672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220

cag ata tac atc tca gat gct ggt att cta gct gtc tgt tat ggt ctt        720
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240

tac cgt tac gct gct tca caa gga ttg acc gct atg atc tgc gtc tat        768
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255

gga gta ccg ctt ttg ata gtg aac ttt ttc ctt gtc ttg gta act ttc        816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270

ttg cag cac act cat cct tcg tta cct cac tat gat tca acc gag tgg        864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285

gaa tgg att aga gga gct ttg gtt acg gta gac aga gac tac gga atc        912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300

ttg aac aag gtg ttt cac aac ata aca gac aca cat gtg gct cat cat        960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320

ctt ttc gca act ata ccg cat tat aac gca atg gaa gct aca gag gcg       1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335

ata aag cca ata ctt ggt gat tac tac cat ttc gat gga aca ccg tgg       1056
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Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350

tat gtg gct atg tat agg gaa gca aag gag tgt ctc tat gta gaa ccg     1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
        355                 360                 365

gat acg gaa cgt ggg aag aaa ggt gtc tac tat tac aac aat aag tta     1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

tga                                                                 1155

<210> 12
<211> 1143
<212> DNA
<213> Crepis biennis

<220>
<221> CDS
<222> (1)...(1140)

<400> 12
atg ggt gca ggt gga aga atg ccg gtt cct act tct tcc aag aaa tcg       48
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                  10                  15

gaa acc gac acc aca aag cgt gtg ccg tgc gag aaa ccg cct ttc tcg       96
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
             20                  25                  30

gtg gga gat ctg aag aaa gca atc cct ccc cat tgc ttc cag cga tct      144
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Gln Arg Ser
         35                  40                  45

gta atc cgt tca tct tac tat gta gtt cac gat ctc att att gcc tac      192
Val Ile Arg Ser Ser Tyr Tyr Val Val His Asp Leu Ile Ile Ala Tyr
     50                  55                  60

atc ttc tac ttc ctt gcc gat aaa tat att ccg att ctc cct gct cct      240
Ile Phe Tyr Phe Leu Ala Asp Lys Tyr Ile Pro Ile Leu Pro Ala Pro
 65                  70                  75                  80

cta gcc tac tta gct tgg ccc ctt tac tgg ttc tgt caa gct agc atc      288
Leu Ala Tyr Leu Ala Trp Pro Leu Tyr Trp Phe Cys Gln Ala Ser Ile
                 85                  90                  95

ctc act ggt tta tgg atc ctc ggt cat gaa tgc ggt cac cat gcc ttt      336
Leu Thr Gly Leu Trp Ile Leu Gly His Glu Cys Gly His His Ala Phe
            100                 105                 110

agc gag cac caa tgg gtt gac gac act gtg ggc ttc atg gtc cac tca      384
Ser Glu His Gln Trp Val Asp Asp Thr Val Gly Phe Met Val His Ser
        115                 120                 125

ttt ctc ctc acc ccg tat ttc tcg tgg aaa tac agt cac cgg aat cac      432
Phe Leu Leu Thr Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His
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    130                 135                 140

cat gcc aac aca agt tcc att gat aac gat gaa gtt tac att ccg aaa       480
His Ala Asn Thr Ser Ser Ile Asp Asn Asp Glu Val Tyr Ile Pro Lys
145                 150                 155                 160

agc aag tcc aaa ctc gcg ctt acc tat aaa ctt ctt aac aac ccg cct       528
Ser Lys Ser Lys Leu Ala Leu Thr Tyr Lys Leu Leu Asn Asn Pro Pro
                165                 170                 175

ggt cga ctg tta gtt atg gtt atc atg ttc acc cta gga ttt cct tta       576
Gly Arg Leu Leu Val Met Val Ile Met Phe Thr Leu Gly Phe Pro Leu
            180                 185                 190

tac ctc ttg aca aat att tcc ggc aag aag tac gac agg ttt gcc aac       624
Tyr Leu Leu Thr Asn Ile Ser Gly Lys Lys Tyr Asp Arg Phe Ala Asn
        195                 200                 205

cac ttc gac ccc atg agt cca att ttc aag gaa cgt gag cgg ttt cag       672
His Phe Asp Pro Met Ser Pro Ile Phe Lys Glu Arg Glu Arg Phe Gln
    210                 215                 220

gtc ttg ctt tcg gat ctt ggc ctt ctt gct gtg ttt tat gga att aaa       720
Val Leu Leu Ser Asp Leu Gly Leu Leu Ala Val Phe Tyr Gly Ile Lys
225                 230                 235                 240

gtt gct gta gca aag aaa gga gct gcg tgg gtg gcg tgt atg tat gga       768
Val Ala Val Ala Lys Lys Gly Ala Ala Trp Val Ala Cys Met Tyr Gly
                245                 250                 255

gtt ccg atg cta ggc gta ttt acc ctt ttc gat atc atc acg tac ttg       816
Val Pro Met Leu Gly Val Phe Thr Leu Phe Asp Ile Ile Thr Tyr Leu
            260                 265                 270

cac cac acc cat cag tcg tct cct cat tat gac tca act gaa tgg aac       864
His His Thr His Gln Ser Ser Pro His Tyr Asp Ser Thr Glu Trp Asn
        275                 280                 285

tgg atc aga ggg gcg ttg tca gca atc gat agg gac ttt ggg ttc atg       912
Trp Ile Arg Gly Ala Leu Ser Ala Ile Asp Arg Asp Phe Gly Phe Met
    290                 295                 300

aat agt gtt ttc cat gat gtt aca cac act cac gtc atg cat cat atg       960
Asn Ser Val Phe His Asp Val Thr His Thr His Val Met His His Met
305                 310                 315                 320

ttt tca tac att cca cac tat cat gcg aaa gag gca agg gat gca atc      1008
Phe Ser Tyr Ile Pro His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile
                325                 330                 335

aat aca atc ata ggc gac tat tat atg atc gat agg act cca att ttg      1056
Asn Thr Ile Ile Gly Asp Tyr Tyr Met Ile Asp Arg Thr Pro Ile Leu
            340                 345                 350

aaa gca ctg tgg aga gag gcc aag gaa tgc atg tac atc gag cct gat      1104
Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Met Tyr Ile Glu Pro Asp
        355                 360                 365
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agc aag cgc aaa ggt gtt tat tgg tat cat aaa ttg tga                 1143
Ser Lys Arg Lys Gly Val Tyr Trp Tyr His Lys Leu
    370                 375                 380

<210> 13
<211> 387
<212> PRT
<213> Ricinus communis

<400> 13
Met Gly Gly Gly Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
 1               5                   10                  15
Glu Lys Lys Gly Gly Ser Ser His Leu Lys Arg Ala Pro His Thr Lys
            20                  25                  30
Pro Pro Phe Thr Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys
        35                  40                  45
Phe Glu Arg Ser Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val
    50                  55                  60
Cys Leu Ser Phe Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr
65                  70                  75                  80
Ile Ser Ser Pro Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe
                85                  90                  95
Gln Gly Cys Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly
            100                 105                 110
His His Ala Phe Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu
        115                 120                 125
Ile Val His Ser Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser
    130                 135                 140
His Arg Arg His His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val
145                 150                 155                 160
Phe Val Pro Lys Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu
                165                 170                 175
Asn Asn Pro Pro Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu
            180                 185                 190
Gly Trp Pro Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp
        195                 200                 205
Arg Phe Ala Cys His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg
    210                 215                 220
Glu Arg Leu Gln Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr
225                 230                 235                 240
Phe Val Leu Tyr Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met
                245                 250                 255
Arg Ile Tyr Gly Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met
            260                 265                 270
Ile Thr Tyr Leu Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser
        275                 280                 285
Ser Glu Trp Asp Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp
    290                 295                 300
Tyr Gly Val Leu Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val
305                 310                 315                 320
Ala His His Leu Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala
                325                 330                 335
Thr Lys Ala Ile Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly
            340                 345                 350
Thr Pro Phe Tyr Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe
        355                 360                 365
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Val Glu Pro Asp Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg
    370                 375                 380
Asn Lys Tyr
385

<210> 14
<211> 384
<212> PRT
<213> Lesquerella fendleri

<400> 14
Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                  10                  15
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
            20                  25                  30
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
        35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95
Val Leu Thr Gly Ile Trp Val Ile Gly His Glu Cys Gly His His Ala
            100                 105                 110
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Phe His
        115                 120                 125
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175
Leu Gly Arg Ile Leu Val Leu Thr Val Gln Phe Ile Leu Gly Trp Pro
            180                 185                 190
Leu Tyr Leu Pro Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
        355                 360                 365
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Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 15
<211> 383
<212> PRT
<213> Lesquerella lindheimeri

<400> 15
Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                  10                  15
Lys Pro Glu Ala Leu Arg Arg Gly Pro Gly Glu Lys Pro Pro Phe Thr
            20                  25                  30
Val Gln Asp Leu Arg Lys Ala Ile Pro Arg His Cys Phe Lys Arg Ser
        35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Ile Leu Ala Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Leu Ser Thr Tyr Phe Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His Gln Ala
            100                 105                 110
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
        115                 120                 125
Thr Phe Leu Leu Ile Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140
His His Ala Asn Asn Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro
145                 150                 155                 160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
            180                 185                 190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Ser Tyr Asp Gly Phe Ala
        195                 200                 205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240
Tyr Arg Tyr Ala Ala Thr Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255
Gly Val Pro Pro Leu Val Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285
Asp Trp Ile Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Gln Cys Leu Tyr Val Glu Gln
        355                 360                 365
Asp Thr Glu Lys Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380
```

```
<210> 16
<211> 384
<212> PRT
<213> Lesquerella gracilis A

<400> 16
Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                  10                  15
Lys Pro Gln Ala Leu Arg Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
            20                  25                  30
Val Lys Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser
        35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Phe Ile Leu Ala Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Val Ser Asn Tyr Leu Ala Trp Pro Leu Tyr Trp Ile Cys Gln Gly Cys
                85                  90                  95
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His His Ala
            100                 105                 110
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
        115                 120                 125
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
            180                 185                 190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205
Ser His Phe Phe Pro His Ala Pro Ile Phe Arg Asp Arg Glu Arg Leu
    210                 215                 220
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240
Tyr Arg Tyr Ala Ala Ser Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
Ile Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Gln
        355                 360                 365
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 17
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```
<211> 384
<212> PRT
<213> Lesquerella gracilis B

<400> 17
Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                  10                  15
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
            20                  25                  30
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
        35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95
Val Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala
            100                 105                 110
Phe Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His
        115                 120                 125
Ser Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175
Leu Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro
            180                 185                 190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
        355                 360                 365
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 18
<211> 374
<212> PRT
```

```
<213> Crepis biennis

<400> 18
Met Gly Ala His Gly His Gly Arg Thr Ser Lys Lys Ser Val Met Glu
 1               5                  10                  15
Arg Val Ser Val Asp Pro Val Pro Phe Ser Leu Ser Asp Leu Lys Gln
            20                  25                  30
Ala Ile Pro Pro His Cys Phe Gln Arg Ser Val Ile Arg Ser Ser Tyr
        35                  40                  45
Tyr Val Val His Asp Leu Ile Ile Ala Tyr Ile Phe Tyr Phe Leu Ala
    50                  55                  60
Asp Lys Tyr Ile Pro Ile Leu Pro Ala Pro Leu Ala Tyr Leu Ala Trp
65                  70                  75                  80
Pro Leu Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp Ile
                85                  90                  95
Leu Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp Val
            100                 105                 110
Asp Asp Thr Val Gly Phe Met Val His Ser Phe Leu Leu Thr Pro Tyr
        115                 120                 125
Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Ser Ser
    130                 135                 140
Ile Asp Asn Asp Glu Val Tyr Ile Pro Lys Ser Lys Ser Lys Leu Ala
145                 150                 155                 160
Leu Thr Tyr Lys Leu Leu Asn Asn Pro Pro Gly Arg Leu Leu Val Met
                165                 170                 175
Val Ile Met Phe Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn Ile
            180                 185                 190
Ser Gly Lys Lys Tyr Asp Arg Phe Ala Asn His Phe Asp Pro Met Ser
        195                 200                 205
Pro Ile Phe Lys Glu Arg Glu Arg Phe Gln Val Leu Leu Ser Asp Leu
    210                 215                 220
Gly Leu Leu Ala Val Phe Tyr Gly Ile Lys Val Ala Val Ala Lys Lys
225                 230                 235                 240
Gly Ala Ala Trp Val Ala Cys Met Tyr Gly Val Pro Met Leu Gly Val
                245                 250                 255
Phe Thr Leu Phe Asp Ile Ile Thr Tyr Leu His His Thr His Gln Ser
            260                 265                 270
Ser Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala Leu
        275                 280                 285
Ser Ala Ile Asp Arg Asp Phe Gly Phe Met Asn Ser Val Phe His Asp
    290                 295                 300
Val Thr His Thr His Val Met His His Met Phe Ser Tyr Ile Pro His
305                 310                 315                 320
Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Asn Thr Ile Ile Gly Asp
                325                 330                 335
Tyr Tyr Met Ile Asp Arg Thr Pro Ile Leu Lys Ala Leu Trp Arg Glu
            340                 345                 350
Ala Lys Glu Cys Met Tyr Ile Glu Pro Asp Ser Lys Arg Lys Gly Val
        355                 360                 365
Tyr Trp Tyr His Lys Leu
    370

<210> 19
<211> 383
<212> PRT
<213> Ricinus communis
```

```
<400> 19
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                  10                  15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
            20                  25                  30
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Glu Arg Ser
        35                  40                  45
Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val Cys Leu Ser Phe
    50                  55                  60
Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr Ile Ser Ser Pro
65                  70                  75                  80
Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe Gln Gly Cys Ile
                85                  90                  95
Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly His His Ala Phe
            100                 105                 110
Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu Ile Val His Ser
        115                 120                 125
Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130                 135                 140
His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                 150                 155                 160
Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu Asn Asn Pro Pro
                165                 170                 175
Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu Gly Trp Pro Leu
            180                 185                 190
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Arg Phe Ala Cys
        195                 200                 205
His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg Glu Arg Leu Gln
    210                 215                 220
Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr Phe Val Leu Tyr
225                 230                 235                 240
Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met Arg Ile Tyr Gly
                245                 250                 255
Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met Ile Thr Tyr Leu
            260                 265                 270
Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser Ser Glu Trp Asp
        275                 280                 285
Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Val Leu
    290                 295                 300
Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val Ala His His Leu
305                 310                 315                 320
Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile
                325                 330                 335
Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly Thr Pro Phe Tyr
            340                 345                 350
Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe Val Glu Pro Asp
        355                 360                 365
Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg Asn Lys Tyr
    370                 375                 380

<210> 20
<211> 384
<212> PRT
<213> Lesquerella fendleri

<400> 20
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
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 1               5                   10                  15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
            20                  25                  30
Val Gly Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
        35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95
Val Leu Thr Gly Ile Trp Val Ile Gly His Glu Cys Gly His His Ala
            100                 105                 110
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Phe His
        115                 120                 125
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175
Leu Gly Arg Ile Leu Val Leu Thr Val Gln Phe Ile Leu Gly Trp Pro
            180                 185                 190
Leu Tyr Leu Pro Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
        355                 360                 365
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 21
<211> 383
<212> PRT
<213> Lesquerella lindheimeri

<400> 21
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                   10                  15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
```

```
            20                  25                  30
Val Gly Asp Leu Arg Lys Ala Ile Pro Arg His Cys Phe Lys Arg Ser
        35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Ile Leu Ala Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Leu Ser Thr Tyr Phe Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His Gln Ala
            100                 105                 110
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
        115                 120                 125
Thr Phe Leu Leu Ile Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140
His His Ala Asn Asn Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro
145                 150                 155                 160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
            180                 185                 190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Ser Tyr Asp Gly Phe Ala
        195                 200                 205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240
Tyr Arg Tyr Ala Ala Thr Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255
Gly Val Pro Pro Leu Val Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285
Asp Trp Ile Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Gln Cys Leu Tyr Val Glu Gln
        355                 360                 365
Asp Thr Glu Lys Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 22
<211> 384
<212> PRT
<213> Lesquerella gracilis A

<400> 22
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                  10                  15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
            20                  25                  30
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser
```

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        35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Phe Ile Leu Ala Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Val Ser Asn Tyr Leu Ala Trp Pro Leu Tyr Trp Ile Cys Gln Gly Cys
                85                  90                  95
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His His Ala
            100                 105                 110
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
        115                 120                 125
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
            180                 185                 190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205
Ser His Phe Phe Pro His Ala Pro Ile Phe Arg Asp Arg Glu Arg Leu
    210                 215                 220
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240
Tyr Arg Tyr Ala Ala Ser Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
Ile Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Gln
        355                 360                 365
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 23
<211> 384
<212> PRT
<213> Lesquerella gracilis B

<400> 23
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                  10                  15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
            20                  25                  30
Val Gly Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
        35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
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    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95
Val Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala
            100                 105                 110
Phe Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His
        115                 120                 125
Ser Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175
Leu Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro
            180                 185                 190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
        355                 360                 365
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 24
<211> 380
<212> PRT
<213> Crepis biennis

<400> 24
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                  10                  15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
            20                  25                  30
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Gln Arg Ser
        35                  40                  45
Val Ile Arg Ser Ser Tyr Tyr Val Val His Asp Leu Ile Ile Ala Tyr
    50                  55                  60
Ile Phe Tyr Phe Leu Ala Asp Lys Tyr Ile Pro Ile Leu Pro Ala Pro
```

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65                  70                  75                  80
Leu Ala Tyr Leu Ala Trp Pro Leu Tyr Trp Phe Cys Gln Ala Ser Ile
                85                  90                  95
Leu Thr Gly Leu Trp Ile Leu Gly His Glu Cys Gly His His Ala Phe
            100                 105                 110
Ser Glu His Gln Trp Val Asp Asp Thr Val Gly Phe Met Val His Ser
        115                 120                 125
Phe Leu Leu Thr Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His
    130                 135                 140
His Ala Asn Thr Ser Ser Ile Asp Asn Asp Glu Val Tyr Ile Pro Lys
145                 150                 155                 160
Ser Lys Ser Lys Leu Ala Leu Thr Tyr Lys Leu Leu Asn Asn Pro Pro
                165                 170                 175
Gly Arg Leu Leu Val Met Val Ile Met Phe Thr Leu Gly Phe Pro Leu
            180                 185                 190
Tyr Leu Leu Thr Asn Ile Ser Gly Lys Lys Tyr Asp Arg Phe Ala Asn
        195                 200                 205
His Phe Asp Pro Met Ser Pro Ile Phe Lys Glu Arg Glu Arg Phe Gln
    210                 215                 220
Val Leu Leu Ser Asp Leu Gly Leu Leu Ala Val Phe Tyr Gly Ile Lys
225                 230                 235                 240
Val Ala Val Ala Lys Lys Gly Ala Ala Trp Val Ala Cys Met Tyr Gly
                245                 250                 255
Val Pro Met Leu Gly Val Phe Thr Leu Phe Asp Ile Ile Thr Tyr Leu
            260                 265                 270
His His Thr His Gln Ser Ser Pro His Tyr Asp Ser Thr Glu Trp Asn
        275                 280                 285
Trp Ile Arg Gly Ala Leu Ser Ala Ile Asp Arg Asp Phe Gly Phe Met
    290                 295                 300
Asn Ser Val Phe His Asp Val Thr His Thr His Val Met His His Met
305                 310                 315                 320
Phe Ser Tyr Ile Pro His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile
                325                 330                 335
Asn Thr Ile Ile Gly Asp Tyr Tyr Met Ile Asp Arg Thr Pro Ile Leu
            340                 345                 350
Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Met Tyr Ile Glu Pro Asp
        355                 360                 365
Ser Lys Arg Lys Gly Val Tyr Trp Tyr His Lys Leu
    370                 375                 380

<210> 25
<211> 1152
<212> DNA
<213> Ricinus communis

<220>
<221> CDS
<222> (1)...(1149)

<400> 25
atg gga ggt ggt ggt cgc atg tct act gtc ata acc agc aac aac agt       48
Met Gly Gly Gly Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
 1               5                  10                  15

gag agc agc cac ctt aag cga gcg ccg cac acg aag cct cct ttc aca       96
Glu Ser Ser His Leu Lys Arg Ala Pro His Thr Lys Pro Pro Phe Thr
             20                  25                  30
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ctt ggt gac ctc aag aga gcc atc cca ccc cat tgc ttt gaa cgc tct      144
Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys Phe Glu Arg Ser
         35                  40                  45

ttt gtg cgc tca ttc tcc tat gtt gcc tat gat gtc tgc tta agt ttt      192
Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val Cys Leu Ser Phe
     50                  55                  60

ctt ttc tac tcg atc gcc acc aac ttc ttc cct tac atc tct tct ccg      240
Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr Ile Ser Ser Pro
 65                  70                  75                  80

ctc tcg tat gtc gct tgg ctg gtt tac tgg ctc ttc caa ggc tgc att      288
Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe Gln Gly Cys Ile
                 85                  90                  95

ctc act ggt ctt tgg gtc atc ggc cat gaa tgt ggc cat cat gct ttt      336
Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly His His Ala Phe
            100                 105                 110

agt gag tat cag ctg gct gat gac att gtt ggc cta att gtc cat tct      384
Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu Ile Val His Ser
        115                 120                 125

gca ctt ctg gtt cca tat ttt tca tgg aaa tat agc cat cgc cgc cac      432
Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130                 135                 140

cat tct aac ata gga tct ctc gag cga gac gaa gtg ttc gtc ccg aaa      480
His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                 150                 155                 160

tca aag tcg aaa att tca tgg tat tct aag tac tta aac aac ccg cca      528
Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu Asn Asn Pro Pro
                165                 170                 175

ggt cga gtt ttg aca ctt gct gcc acg ctc ctc ctt ggc tgg cct tta      576
Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu Gly Trp Pro Leu
            180                 185                 190

tac tta gct ttc aat gtc tct ggt aga cct tac gat cgc ttt gct tgc      624
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Arg Phe Ala Cys
        195                 200                 205

cat tat gat ccc tat ggc cca ata ttt tcc gaa aga gaa agg ctt cag      672
His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg Glu Arg Leu Gln
    210                 215                 220

att tac att gct gac ctc gga atc ttt gcc aca acg ttt gtg ctt tat      720
Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr Phe Val Leu Tyr
225                 230                 235                 240

cag gct aca atg gca aaa ggg ttg gct tgg gta atg cgt atc tat ggg      768
Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met Arg Ile Tyr Gly
                245                 250                 255
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gtg cca ttg ctt att gtt aac tgt ttc ctt gtt atg atc aca tac ttg          816
Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met Ile Thr Tyr Leu
            260                 265                 270

cag cac act cac cca gct att cca cgc tat ggc tca tcg gaa tgg gat          864
Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser Ser Glu Trp Asp
        275                 280                 285

tgg ctc cgg gga gca atg gtg act gtc gat aga gat tat ggg gtg ttg          912
Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Val Leu
    290                 295                 300

aat aaa gta ttc cat aac att gca gac act cat gta gct cat cat ctc          960
Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val Ala His His Leu
305                 310                 315                 320

ttt gct aca gtg cca cat tac cat gca atg gag gcc act aaa gca atc         1008
Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile
                325                 330                 335

aag cct ata atg ggt gag tat tac cgg tat gat ggt acc cca ttt tac         1056
Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly Thr Pro Phe Tyr
            340                 345                 350

aag gca ttg tgg agg gag gca aag gag tgc ttg ttc gtc gag cca gat         1104
Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe Val Glu Pro Asp
        355                 360                 365

gaa gga gct cct aca caa ggc gtt ttc tgg tac cgg aac aag tat             1149
Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg Asn Lys Tyr
    370                 375                 380

taa                                                                     1152

<210> 26
<211> 1152
<212> DNA
<213> Lesquerella gracilis B

<220>
<221> CDS
<222> (1)...(1149)

<400> 26
atg ggt gct ggt gga aga ata atg gtt acc cct tct tcc aag aaa tca           48
Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                   10                  15

gaa act gaa gcc cta aaa cgt gga cca tgt gag aaa cca cca ttc act           96
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
             20                  25                  30

gtt aaa gat ctg aag aaa gca atc cca cag cat tgt ttt caa cgc tct          144
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
         35                  40                  45

atc cct cgt tct ttc tcc tac ctt ctc aca gat atc act tta gtt tct          192
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Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
     50                  55                  60

tgc ttc tac tac gtt gcc aca aat tac ttc tct ctt ctt cct cag cct      240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
 65                  70                  75                  80

ctc tct tac cta gct tgg cct ctc tat tgg gta tgt caa ggc tgt gtc      288
Leu Ser Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys Val
                 85                  90                  95

cta aca ggt atc tgg gtc ctt ggc cat gaa tgt ggt cac cat gca ttc      336
Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala Phe
            100                 105                 110

agt gac tat caa tgg cta gat gac act gtt ggt ttt atc ttc cat tcc      384
Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His Ser
        115                 120                 125

tta ctt ctc gtc cct tac ttc tcc tgg aaa tac agt cat cgt cgt cac      432
Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130                 135                 140

cat tcc aac aat gga tct ctc gag aaa gat gaa gtc ttt gtc cca ccg      480
His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro Pro
145                 150                 155                 160

aaa aaa gct gca gtc aaa tgg tat gtt aaa tac ctc aac aac cct ctt      528
Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro Leu
                165                 170                 175

gga cgc att ctg gtg tta aca gtt cgg ttt atc ctc ggg tgg cct ttg      576
Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro Leu
            180                 185                 190

tat cta gcc ttt aat gta tca ggt aga cct tat gat ggt ttc gct tca      624
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala Ser
        195                 200                 205

cat ttc ttc cct cat gca cct atc ttt aaa gac cgc gaa cgt ctc cag      672
His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu Gln
    210                 215                 220

ata tac atc tca gat gct ggt att cta gct gtc tgt tat ggt ctt tac      720
Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu Tyr
225                 230                 235                 240

cgt tac gct gct tca caa gga ttg acc gct atg atc tgc gtc tat gga      768
Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr Gly
                245                 250                 255

gta ccg ctt ttg ata gtg aac ttt ttc ctt gtc ttg gta act ttc ttg      816
Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe Leu
            260                 265                 270

cag cac act cat cct tcg tta cct cac tat gat tca acc gag tgg gaa      864
Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Glu
```

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        275                 280                 285

tgg att aga gga gct ttg gtt acg gta gac aga gac tac gga atc ttg      912
Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile Leu
    290                 295                 300

aac aag gtg ttt cac aac ata aca gac aca cat gtg gct cat cat ctt      960
Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His Leu
305                 310                 315                 320

ttc gca act ata ccg cat tat aac gca atg gaa gct aca gag gcg ata     1008
Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala Ile
                325                 330                 335

aag cca ata ctt ggt gat tac tac cat ttc gat gga aca ccg tgg tat     1056
Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp Tyr
            340                 345                 350

gtg gct atg tat agg gaa gca aag gag tgt ctc tat gta gaa ccg gat     1104
Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro Asp
        355                 360                 365

acg gaa cgt ggg aag aaa ggt gtc tac tat tac aac aat aag tta         1149
Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

tga                                                                 1152

<210> 27
<211> 1134
<212> DNA
<213> Stokesia laevis

<220>
<221> CDS
<222> (1)...(1131)

<400> 27
atg ggt gca ggt ggt cgg atg tcg gat cta tct gac gga aaa aat ctc       48
Met Gly Ala Gly Gly Arg Met Ser Asp Leu Ser Asp Gly Lys Asn Leu
 1               5                  10                  15

ctc aaa cgt gtg cca gtt gat cca cct ttc aca tta agt gat ata aag       96
Leu Lys Arg Val Pro Val Asp Pro Pro Phe Thr Leu Ser Asp Ile Lys
            20                  25                  30

aaa gca atc cct ccc cat tgc ttc aaa cga tct gtc ata cgt tcg tcc      144
Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser Val Ile Arg Ser Ser
        35                  40                  45

tac tat gtt gtt cat gat ctc atc gtc tcc tac gtc ttc ttc ttc ctc      192
Tyr Tyr Val Val His Asp Leu Ile Val Ser Tyr Val Phe Phe Phe Leu
    50                  55                  60

gca acg aca tat att act gtt ctt cct gct cct ctt gct tac ata gcg      240
Ala Thr Thr Tyr Ile Thr Val Leu Pro Ala Pro Leu Ala Tyr Ile Ala
65                  70                  75                  80
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```
tgg cca gtt tac tgg ttt tgc caa gca agt att ctc act ggg ttg tgg      288
Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp
                 85                  90                  95

gtt atc ggc cat gaa tgt ggt cac cat gcc ttt agt gaa tac cag tgg      336
Val Ile Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp
            100                 105                 110

att gat gac aca gtt ggg ttc atc ctc cac tcg gct ctc ctc acc cct      384
Ile Asp Asp Thr Val Gly Phe Ile Leu His Ser Ala Leu Leu Thr Pro
        115                 120                 125

tac ttc tct tgg aaa tat agc cat cga aat cac cat gcg aac aca aat      432
Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Asn
    130                 135                 140

tca ctc gac aac gac gaa gtt tac att cct aag cgc aag tcc aaa gtc      480
Ser Leu Asp Asn Asp Glu Val Tyr Ile Pro Lys Arg Lys Ser Lys Val
145                 150                 155                 160

aag att tac tcc aaa atc cta aac aac cca cct gga cga gtg ttc act      528
Lys Ile Tyr Ser Lys Ile Leu Asn Asn Pro Pro Gly Arg Val Phe Thr
                165                 170                 175

ttg gtt ttc agg ttg acg cta ggg ttt cct ttg tac ctg tta act aat      576
Leu Val Phe Arg Leu Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn
            180                 185                 190

atc tct gga aag aaa tac caa cgg ttt gcc aac cac ttt gat cca ttg      624
Ile Ser Gly Lys Lys Tyr Gln Arg Phe Ala Asn His Phe Asp Pro Leu
        195                 200                 205

agt ccc atc ttc acc gag cgt gaa cga att cag gtt ctt gta tca gat      672
Ser Pro Ile Phe Thr Glu Arg Glu Arg Ile Gln Val Leu Val Ser Asp
    210                 215                 220

ctt ggt ctt cta gct gta atc tac gca atc aag ctt ctt gtt gct gca      720
Leu Gly Leu Leu Ala Val Ile Tyr Ala Ile Lys Leu Leu Val Ala Ala
225                 230                 235                 240

aaa gga gct gtc tgg gtg aca tgc atc tat gga gtt cca gtc cta ggt      768
Lys Gly Ala Val Trp Val Thr Cys Ile Tyr Gly Val Pro Val Leu Gly
                245                 250                 255

gta agc gtg ttc ttc gtt ttg atc acg tat tta cac cac acc cat ctc      816
Val Ser Val Phe Phe Val Leu Ile Thr Tyr Leu His His Thr His Leu
            260                 265                 270

tcc tta cct cat tac gat tcg act gag tgg aac tgg atc aga ggg gca      864
Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala
        275                 280                 285

ttg tca acc atc gat agg gat ttt ggg ttc cta aat agg gtt ttc cat      912
Leu Ser Thr Ile Asp Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His
    290                 295                 300
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gac gtt aca cac act cat gta ttg cat cat ttg atc tct tac att cca      960
Asp Val Thr His Thr His Val Leu His His Leu Ile Ser Tyr Ile Pro
305                 310                 315                 320

cac tat cat gca aag gag gca aga gat gca atc aaa cca gtt ttg ggt     1008
His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly
                325                 330                 335

gat tat tat aag att gat agg act ccg ata ttc aaa gca atg tgg aga     1056
Asp Tyr Tyr Lys Ile Asp Arg Thr Pro Ile Phe Lys Ala Met Trp Arg
            340                 345                 350

gag gcc aag gaa tgc atc tat atc gag cca gat gaa gat act gaa cac     1104
Glu Ala Lys Glu Cys Ile Tyr Ile Glu Pro Asp Glu Asp Thr Glu His
        355                 360                 365

aag ggt gtt tac tgg tac cat aaa atg tga                             1134
Lys Gly Val Tyr Trp Tyr His Lys Met
    370                 375

<210> 28
<211> 1164
<212> DNA
<213> Ricinus communis

<220>
<221> CDS
<222> (1)...(1161)

<400> 28
atg gct tcc tcc gga aga atg tct act gtg att act tct aac aac tct       48
Met Ala Ser Ser Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
 1               5                  10                  15

gag aag aag gga ggt tct tct cat ctt aag aga gct cca cat act aag       96
Glu Lys Lys Gly Gly Ser Ser His Leu Lys Arg Ala Pro His Thr Lys
            20                  25                  30

cca cct ttc act ctt gga gac ctt aag aga gct att cca cct cat tgt      144
Pro Pro Phe Thr Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys
        35                  40                  45

ttc gag aga tct ttc gtg aga tct ttc tct tat gtg gct tat gac gtg      192
Phe Glu Arg Ser Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val
    50                  55                  60

tgt ctt tct ttc ctt ttc tat tct att gct act aac ttc ttc cca tat      240
Cys Leu Ser Phe Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr
 65                  70                  75                  80

att tct tct cca ctt tct tat gtg gct tgg ctt gtg tat tgg ctt ttc      288
Ile Ser Ser Pro Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe
                85                  90                  95

caa gga tgt att ctt act gga ctt tgg gtt att ggt cat gag tgt ggt      336
Gln Gly Cys Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly
            100                 105                 110
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cat cat gca ttt tct gaa tat caa ctt gct gac gac att gtg gga ctt     384
His His Ala Phe Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu
        115                 120                 125

att gtg cat tct gct ctt ttg gtg cca tat ttc tct tgg aag tat tct     432
Ile Val His Ser Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser
    130                 135                 140

cat aga aga cat cat tct aac att gga tct ctt gag aga gac gag gtg     480
His Arg Arg His His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val
145                 150                 155                 160

ttt gtg cct aag tct aag tct aag att tct tgg tat tct aag tat ctt     528
Phe Val Pro Lys Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu
                165                 170                 175

aac aac cca cct gga aga gtg ctt act ctt gct gca act ctt ttg ctt     576
Asn Asn Pro Pro Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu
            180                 185                 190

gga tgg cca ctt tat ctt gct ttc aac gtg tct gga aga cca tat gac     624
Gly Trp Pro Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp
        195                 200                 205

aga ttc gct tgt cat tat gac cca tat gga cca att ttc tct gag aga     672
Arg Phe Ala Cys His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg
    210                 215                 220

gag aga ctt caa atc tat att gct gac ctt gga att ttc gct act act     720
Glu Arg Leu Gln Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr
225                 230                 235                 240

ttc gtg ctt tat caa gct act atg gct aag gga ctt gct tgg gtt atg     768
Phe Val Leu Tyr Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met
                245                 250                 255

aga atc tat gga gtg cca ctt ttg att gtg aac tgt ttc ctt gtg atg     816
Arg Ile Tyr Gly Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met
            260                 265                 270

att act tat ctt caa cat act cat cca gct att cca aga tat gga tct     864
Ile Thr Tyr Leu Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser
        275                 280                 285

tct gaa tgg gat tgg ctt aga gga gct atg gtg act gtg gac aga gac     912
Ser Glu Trp Asp Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp
    290                 295                 300

tat gga gtg ctt aac aag gtg ttc cat aac att gct gac act cat gtg     960
Tyr Gly Val Leu Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val
305                 310                 315                 320

gct cat cat ctt ttc gct act gtg cca cat tat cat gct atg gag gct    1008
Ala His His Leu Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala
                325                 330                 335
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act aag gct att aag cca att atg gga gag tat tat aga tat gac gga     1056
Thr Lys Ala Ile Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly
            340                 345                 350

act cca ttc tat aag gct ctt tgg aga gag gct aag gag tgt ctt ttc     1104
Thr Pro Phe Tyr Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe
        355                 360                 365

gtt gaa cca gat gaa gga gct cca act caa gga gtg ttc tgg tat aga     1152
Val Glu Pro Asp Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg
    370                 375                 380

aac aag tat taa                                                     1164
Asn Lys Tyr
385

<210> 29
<211> 1134
<212> DNA
<213> Stokesia laevis

<220>
<221> CDS
<222> (1)...(1131)

<400> 29
atg gct tcc tcc gga aga atg tct gac ctt tct gac gga aag aac ctt       48
Met Ala Ser Ser Gly Arg Met Ser Asp Leu Ser Asp Gly Lys Asn Leu
 1               5                  10                  15

ttg aag aga gtg cca gtg gac cca cct ttc act ctt tct gac att aag       96
Leu Lys Arg Val Pro Val Asp Pro Pro Phe Thr Leu Ser Asp Ile Lys
             20                  25                  30

aag gct att cca cct cat tgt ttc aag aga tct gtg att aga tct tct      144
Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser Val Ile Arg Ser Ser
         35                  40                  45

tat tat gtg gtg cat gac ctt att gtg tct tat gtg ttc ttc ttc ctt      192
Tyr Tyr Val Val His Asp Leu Ile Val Ser Tyr Val Phe Phe Phe Leu
     50                  55                  60

gct act act tat att act gtg ctt cca gct cca ctt gct tat att gct      240
Ala Thr Thr Tyr Ile Thr Val Leu Pro Ala Pro Leu Ala Tyr Ile Ala
 65                  70                  75                  80

tgg cca gtg tat tgg ttc tgt caa gct tct att ctt act gga ctt tgg      288
Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp
                 85                  90                  95

gtt att gga cat gag tgt gga cat cat gct ttc tct gag tat caa tgg      336
Val Ile Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp
            100                 105                 110

att gac gac act gtg gga ttc att ctt cat tct gct ctt ttg act cca      384
Ile Asp Asp Thr Val Gly Phe Ile Leu His Ser Ala Leu Leu Thr Pro
        115                 120                 125
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tat ttc tct tgg aag tat tct cat aga aac cat cat gct aac act aac       432
Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Asn
    130                 135                 140

tct ctt gac aac gac gag gtg tat att cca aag aga aag tct aag gtg       480
Ser Leu Asp Asn Asp Glu Val Tyr Ile Pro Lys Arg Lys Ser Lys Val
145                 150                 155                 160

aag atc tat tct aag att ctt aac aac cca cct gga aga gtg ttc act       528
Lys Ile Tyr Ser Lys Ile Leu Asn Asn Pro Pro Gly Arg Val Phe Thr
                165                 170                 175

ctt gtg ttc aga ctt act ctt gga ttc cca ctt tat ctt ttg act aac       576
Leu Val Phe Arg Leu Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn
            180                 185                 190

att tct gga aag aag tat caa aga ttc gct aac cat ttc gac cca ctt       624
Ile Ser Gly Lys Lys Tyr Gln Arg Phe Ala Asn His Phe Asp Pro Leu
        195                 200                 205

tct cca att ttc act gag aga gag aga att caa gtg ctt gtg tct gac       672
Ser Pro Ile Phe Thr Glu Arg Glu Arg Ile Gln Val Leu Val Ser Asp
    210                 215                 220

ctt gga ctt ttg gct gtg atc tat gct att aag ctt ttg gtt gct gca       720
Leu Gly Leu Leu Ala Val Ile Tyr Ala Ile Lys Leu Leu Val Ala Ala
225                 230                 235                 240

aag gga gct gtg tgg gtg act tgt atc tat gga gtt cca gtt ctt gga       768
Lys Gly Ala Val Trp Val Thr Cys Ile Tyr Gly Val Pro Val Leu Gly
                245                 250                 255

gtg tct gtg ttc ttc gtg ctt att act tat ctt cat cat act cat ctt       816
Val Ser Val Phe Phe Val Leu Ile Thr Tyr Leu His His Thr His Leu
            260                 265                 270

tct ctt cca cat tat gac tct act gag tgg aac tgg att aga gga gct       864
Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala
        275                 280                 285

ctt tct act att gac aga gac ttc gga ttc ctt aac aga gtg ttc cat       912
Leu Ser Thr Ile Asp Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His
    290                 295                 300

gac gtg act cat act cat gtg ctt cat cat ctt att tct tat att cca       960
Asp Val Thr His Thr His Val Leu His His Leu Ile Ser Tyr Ile Pro
305                 310                 315                 320

cat tat cat gct aag gag gct aga gac gct att aag cca gtg ctt gga      1008
His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly
                325                 330                 335

gac tat tat aag att gac aga act cca atc ttt aag gct atg tgg aga      1056
Asp Tyr Tyr Lys Ile Asp Arg Thr Pro Ile Phe Lys Ala Met Trp Arg
            340                 345                 350
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gag gct aag gag tgt atc tat att gaa cca gac gaa gac act gag cat      1104
Glu Ala Lys Glu Cys Ile Tyr Ile Glu Pro Asp Glu Asp Thr Glu His
        355                 360                 365

aag gga gtg tat tgg tat cat aag atg taa                              1134
Lys Gly Val Tyr Trp Tyr His Lys Met
    370                 375

<210> 30
<211> 1164
<212> DNA
<213> Ricinus communis

<220>
<221> CDS
<222> (1)...(1161)

<400> 30
atg gct tcc tcc ggt agg atg tct act gtc ata acc agc aac aac agt        48
Met Ala Ser Ser Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
 1               5                   10                  15

gag aag aaa gga gga agc agt cac ctt aag agg gct cca cac act aag        96
Glu Lys Lys Gly Gly Ser Ser His Leu Lys Arg Ala Pro His Thr Lys
             20                  25                  30

cct cct ttc aca ctt ggt gac ctc aag aga gcc atc cca ccc cat tgc       144
Pro Pro Phe Thr Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys
         35                  40                  45

ttt gaa agg tct ttt gtg aga tca ttc tcc tat gtt gcc tat gat gtc       192
Phe Glu Arg Ser Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val
     50                  55                  60

tgc tta agt ttt ctt ttc tac tct atc gcc acc aac ttc ttc cct tac       240
Cys Leu Ser Phe Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr
 65                  70                  75                  80

atc tct tct cca ctc tct tat gtc gct tgg ctg gtt tac tgg ctc ttc       288
Ile Ser Ser Pro Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe
                 85                  90                  95

caa ggc tgc att ctc act ggt ctt tgg gtc atc ggc cat gaa tgt ggc       336
Gln Gly Cys Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly
            100                 105                 110

cat cat gct ttt agt gag tat cag ctg gct gat gac att gtt ggc cta       384
His His Ala Phe Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu
        115                 120                 125

att gtc cat tct gca ctt ctg gtt cca tac ttc tca tgg aaa tat agc       432
Ile Val His Ser Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser
    130                 135                 140

cat aga agg cac cat tct aac ata gga tct ctc gag agg gac gaa gtg       480
His Arg Arg His His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val
145                 150                 155                 160
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ttc gtc cca aaa tca aag tct aaa att tca tgg tat tct aag tac tta       528
Phe Val Pro Lys Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu
                165                 170                 175

aac aac cct cca ggt agg gtt ttg aca ctt gct gcc act ctt ctc ctt       576
Asn Asn Pro Pro Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu
            180                 185                 190

ggc tgg cct tta tac tta gct ttc aat gtc tct ggt aga cct tac gat       624
Gly Trp Pro Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp
        195                 200                 205

agg ttt gct tgc cat tat gat ccc tat ggc cca ata ttt tcc gaa aga       672
Arg Phe Ala Cys His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg
    210                 215                 220

gaa agg ctt cag atc tac att gct gac ctc gga atc ttt gcc aca act       720
Glu Arg Leu Gln Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr
225                 230                 235                 240

ttt gtg ctt tat cag gct aca atg gca aaa ggg ttg gct tgg gta atg       768
Phe Val Leu Tyr Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met
                245                 250                 255

agg atc tat ggg gtg cca ttg ctt att gtt aac tgt ttc ctt gtt atg       816
Arg Ile Tyr Gly Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met
            260                 265                 270

atc aca tac ttg cag cac act cac cca gct att cca agg tat ggc tca       864
Ile Thr Tyr Leu Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser
        275                 280                 285

tct gaa tgg gat tgg ctc agg gga gca atg gtg act gtc gat aga gat       912
Ser Glu Trp Asp Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp
    290                 295                 300

tat ggg gtg ttg aac aag gta ttc cat aac att gca gac act cat gta       960
Tyr Gly Val Leu Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val
305                 310                 315                 320

gct cat cat ctc ttt gct aca gtg cca cat tac cat gca atg gag gcc      1008
Ala His His Leu Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala
                325                 330                 335

act aaa gca atc aag cct ata atg gga gag tat tac agg tat gat ggt      1056
Thr Lys Ala Ile Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly
            340                 345                 350

acc cca ttt tac aag gca ttg tgg agg gag gca aag gag tgc ttg ttc      1104
Thr Pro Phe Tyr Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe
        355                 360                 365

gtc gag cca gat gaa gga gct cct aca caa ggc gtt ttc tgg tac agg      1152
Val Glu Pro Asp Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg
    370                 375                 380
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aac aag tat taa                                                     1164
Asn Lys Tyr
385

<210> 31
<211> 1155
<212> DNA
<213> Artificial Sequence

<220>
<223> hypothetical sequence

<221> CDS
<222> (1)...(1152)

<400> 31
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Met Ala Ser Ser Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                   10                  15

gaa act gaa gcc cta aag cgt gga cca tgt gag aaa cca cca ttc act       96
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
             20                  25                  30

gtt aaa gat ctg aag aag gca atc cca cag cat tgt ttc caa aga tct      144
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
         35                  40                  45

atc cct cgt tct ttc tcc tac ctt ctc aca gat atc act tta gtt tct      192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
     50                  55                  60

tgc ttc tac tac gtt gcc aca aat tac ttc tct ctt ctt cct cag cct      240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
 65                  70                  75                  80

ctc tct act tac cta gct tgg cct ctc tat tgg gta tgt caa ggc tgt      288
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                 85                  90                  95

gtc cta aca ggt atc tgg gtc ctt ggc cat gaa tgt ggt cac cat gca      336
Val Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala
            100                 105                 110

ttc agt gac tat caa tgg cta gat gac act gtt ggt ttc atc ttc cat      384
Phe Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His
        115                 120                 125

tcc tta ctt ctc gtc cct tac ttc tcc tgg aaa tac agt cat cgt cgt      432
Ser Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140

cac cat tcc aac aat gga tct ctc gag aaa gat gaa gtc ttt gtc cca      480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160

cca aag aag gct gca gtc aaa tgg tat gtt aaa tac ctc aac aac cct      528
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```
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175

ctt gga agg att ctg gtg tta aca gtt agg ttt atc ctc ggg tgg cct      576
Leu Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro
            180                 185                 190

ttg tat cta gcc ttt aat gta tca ggt aga cct tat gat ggt ttc gct      624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205

tca cat ttc ttc cct cat gca cct atc ttt aaa gac agg gaa cgt ctc      672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220

cag ata tac atc tca gat gct ggt att cta gct gtc tgt tat ggt ctt      720
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240

tac cgt tac gct gct tca caa gga ttg acc gct atg atc tgc gtc tat      768
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255

gga gta cct ctt ttg ata gtg aac ttc ttc ctt gtc ttg gta act ttc      816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270

ttg cag cac act cat cct tct tta cct cac tat gat tca acc gag tgg      864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285

gaa tgg att aga gga gct ttg gtt act gta gac aga gac tac gga atc      912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300

ttg aac aag gtg ttt cac aac ata aca gac aca cat gtg gct cat cat      960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320

ttg ttc gca act ata cct cat tat aac gca atg gaa gct aca gag gct     1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335

atc aag cca ata ctt ggt gat tac tac cat ttc gat gga aca cct tgg     1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350

tat gtg gct atg tat agg gaa gca aag gag tgt ctc tat gta gaa cct     1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
        355                 360                 365

gat act gaa cgt ggg aag aag ggt gtc tac tat tac aac aat aag tta     1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

taa                                                                 1155
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<210> 32
<211> 1125
<212> DNA
<213> Artificial Sequence

<220>
<223> hypothetical sequence

<221> CDS
<222> (1)...(1122)

<400> 32
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Met Ala Ser Ser Gly His Ser Arg Thr Ser Lys Lys Ser Val Met Glu
 1               5                   10                  15

cgt gtc tct gtt gat cca gta ccc ttc tct cta agt gat ttg aag caa        96
Arg Val Ser Val Asp Pro Val Pro Phe Ser Leu Ser Asp Leu Lys Gln
             20                  25                  30

gca atc cct ccc cat tgc ttc cag cga tct gtc atc cgt tca tct tac       144
Ala Ile Pro Pro His Cys Phe Gln Arg Ser Val Ile Arg Ser Ser Tyr
         35                  40                  45

tat gta gtt cac gat ctc att att gcc tac atc ttc tac ttc ctt gcc       192
Tyr Val Val His Asp Leu Ile Ile Ala Tyr Ile Phe Tyr Phe Leu Ala
     50                  55                  60

gac aaa tac att cca att ctc cct gct cct cta gcc tac tta gct tgg       240
Asp Lys Tyr Ile Pro Ile Leu Pro Ala Pro Leu Ala Tyr Leu Ala Trp
65                   70                  75                  80

ccc ctt tac tgg ttc tgt caa gct agc atc ctc act ggt tta tgg atc       288
Pro Leu Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp Ile
                 85                  90                  95

ctc ggt cat gaa tgc ggt cac cat gcc ttt agc gag tac caa tgg gtt       336
Leu Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp Val
            100                 105                 110

gac gac act gtg ggc ttc atg gtc cac tca ttt ctt ctc act cct tac       384
Asp Asp Thr Val Gly Phe Met Val His Ser Phe Leu Leu Thr Pro Tyr
        115                 120                 125

ttc tct tgg aaa tac agt cac agg aat cac cat gcc aac aca agt tcc       432
Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Ser Ser
    130                 135                 140

att gat aac gat gaa gtt tac att cct aag agc aag tcc aaa ctc gct       480
Ile Asp Asn Asp Glu Val Tyr Ile Pro Lys Ser Lys Ser Lys Leu Ala
145                 150                 155                 160

ctt acc tat aag ctt ctt aac aac cct cca gga agg ctg tta gtt atg       528
Leu Thr Tyr Lys Leu Leu Asn Asn Pro Pro Gly Arg Leu Leu Val Met
                165                 170                 175

gtt atc atg ttc acc cta gga ttt cct tta tac ctc ttg aca aat att       576
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Val Ile Met Phe Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn Ile
            180                 185                 190

tcc ggc aag aag tac gac agg ttt gcc aac cac ttc gac ccc atg agt      624
Ser Gly Lys Lys Tyr Asp Arg Phe Ala Asn His Phe Asp Pro Met Ser
        195                 200                 205

cca att ttc aag gaa cgt gag agg ttt cag gtc ttg ctt tct gat ctt      672
Pro Ile Phe Lys Glu Arg Glu Arg Phe Gln Val Leu Leu Ser Asp Leu
    210                 215                 220

ggc ctt ctt gct gtg ttt tat gga atc aaa gtt gct gta gca aag aag      720
Gly Leu Leu Ala Val Phe Tyr Gly Ile Lys Val Ala Val Ala Lys Lys
225                 230                 235                 240

gga gct gct tgg gtg gct tgt atg tat gga gtt cca atg cta ggc gta      768
Gly Ala Ala Trp Val Ala Cys Met Tyr Gly Val Pro Met Leu Gly Val
                245                 250                 255

ttc acc ctt ttc gat atc atc act tac ttg cac cac acc cat cag tca      816
Phe Thr Leu Phe Asp Ile Ile Thr Tyr Leu His His Thr His Gln Ser
            260                 265                 270

tct cct cat tat gac tca act gaa tgg aac tgg atc aga gga gct ttg      864
Ser Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala Leu
        275                 280                 285

tca gca atc gat agg gac ttt ggg ttc atg aat agt gtc ttc cat gat      912
Ser Ala Ile Asp Arg Asp Phe Gly Phe Met Asn Ser Val Phe His Asp
    290                 295                 300

gtt aca cac act cac gtc atg cat cat atg ttc tca tac att cca cac      960
Val Thr His Thr His Val Met His His Met Phe Ser Tyr Ile Pro His
305                 310                 315                 320

tat cat gct aag gag gca agg gat gca atc aat aca atc ata ggc gac     1008
Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Asn Thr Ile Ile Gly Asp
                325                 330                 335

tat tat atg atc gat agg act cca att ttg aaa gca ctg tgg aga gag     1056
Tyr Tyr Met Ile Asp Arg Thr Pro Ile Leu Lys Ala Leu Trp Arg Glu
            340                 345                 350

gcc aag gaa tgc atg tac atc gag cct gat agc aag agg aag ggt gta     1104
Ala Lys Glu Cys Met Tyr Ile Glu Pro Asp Ser Lys Arg Lys Gly Val
        355                 360                 365

tat tgg tac cat aaa ttg taa                                         1125
Tyr Trp Tyr His Lys Leu
    370
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<210> 33
<211> 1134
<212> DNA
<213> Stokesia laevis

<220>

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<221> CDS
<222> (1)...(1131)

<400> 33
atg gct tcc tcc ggt agg atg tct gat ctt tct gac ggt aag aat ctt        48
Met Ala Ser Ser Gly Arg Met Ser Asp Leu Ser Asp Gly Lys Asn Leu
 1               5                   10                  15

ctc aaa agg gtg cca gtt gat cca cct ttc aca tta agt gat ata aag        96
Leu Lys Arg Val Pro Val Asp Pro Pro Phe Thr Leu Ser Asp Ile Lys
             20                  25                  30

aaa gca atc cct ccc cat tgc ttc aaa agg tct gtc ata agg tct tca       144
Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser Val Ile Arg Ser Ser
         35                  40                  45

tac tat gtt gtt cat gat ctc atc gtc tcc tac gtc ttc ttc ttc ctc       192
Tyr Tyr Val Val His Asp Leu Ile Val Ser Tyr Val Phe Phe Phe Leu
     50                  55                  60

gca act aca tat att act gtt ctt cct gct cct ctt gct tac ata gct       240
Ala Thr Thr Tyr Ile Thr Val Leu Pro Ala Pro Leu Ala Tyr Ile Ala
 65                  70                  75                  80

tgg cca gtt tac tgg ttt tgc caa gca agt att ctc act ggg ttg tgg       288
Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp
                 85                  90                  95

gtt atc ggc cat gaa tgt ggt cac cat gcc ttt agt gaa tac cag tgg       336
Val Ile Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp
            100                 105                 110

att gat gac aca gtt ggg ttc atc ctc cac tct gct ctt ctc acc cct       384
Ile Asp Asp Thr Val Gly Phe Ile Leu His Ser Ala Leu Leu Thr Pro
        115                 120                 125

tac ttc tct tgg aaa tat agc cat agg aat cac cat gct aac aca aat       432
Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Asn
    130                 135                 140

tca ctc gac aac gac gaa gtt tac att cct aag agg aag tcc aaa gtc       480
Ser Leu Asp Asn Asp Glu Val Tyr Ile Pro Lys Arg Lys Ser Lys Val
145                 150                 155                 160

aag atc tac tcc aaa atc cta aac aac cca cct gga agg gtg ttc act       528
Lys Ile Tyr Ser Lys Ile Leu Asn Asn Pro Pro Gly Arg Val Phe Thr
                165                 170                 175

ttg gtt ttc agg ttg act cta ggg ttt cct ttg tac ctg tta act aat       576
Leu Val Phe Arg Leu Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn
            180                 185                 190

atc tct gga aag aaa tac caa agg ttt gcc aac cac ttt gat cca ttg       624
Ile Ser Gly Lys Lys Tyr Gln Arg Phe Ala Asn His Phe Asp Pro Leu
        195                 200                 205

agt ccc atc ttc acc gag agg gaa agg att cag gtt ctt gta tca gat       672
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```
Ser Pro Ile Phe Thr Glu Arg Glu Arg Ile Gln Val Leu Val Ser Asp
    210                 215                 220

ctt ggt ctt cta gct gta atc tac gca atc aag ctt ctt gtt gct gca      720
Leu Gly Leu Leu Ala Val Ile Tyr Ala Ile Lys Leu Leu Val Ala Ala
225                 230                 235                 240

aaa gga gct gtc tgg gtg aca tgc atc tat gga gtt cca gtc cta ggt      768
Lys Gly Ala Val Trp Val Thr Cys Ile Tyr Gly Val Pro Val Leu Gly
                245                 250                 255

gta agc gtg ttc ttc gtt ttg atc act tac ttg cac cac acc cat ctt      816
Val Ser Val Phe Phe Val Leu Ile Thr Tyr Leu His His Thr His Leu
            260                 265                 270

tcc ttg cct cat tac gat tct act gag tgg aac tgg atc aga ggg gca      864
Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala
        275                 280                 285

ttg tca acc atc gat agg gat ttt ggg ttc cta aat agg gtt ttc cat      912
Leu Ser Thr Ile Asp Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His
    290                 295                 300

gac gtt aca cac act cat gta ttg cat cat ttg atc tct tac att cca      960
Asp Val Thr His Thr His Val Leu His His Leu Ile Ser Tyr Ile Pro
305                 310                 315                 320

cac tat cat gca aag gag gca aga gat gca atc aaa cca gtt ttg ggt     1008
His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly
                325                 330                 335

gat tat tat aag att gat agg act cct ata ttc aaa gca atg tgg aga     1056
Asp Tyr Tyr Lys Ile Asp Arg Thr Pro Ile Phe Lys Ala Met Trp Arg
            340                 345                 350

gag gcc aag gaa tgc atc tat atc gag cca gat gaa gat act gaa cac     1104
Glu Ala Lys Glu Cys Ile Tyr Ile Glu Pro Asp Glu Asp Thr Glu His
        355                 360                 365

aag ggt gtt tac tgg tac cat aaa atg taa                             1134
Lys Gly Val Tyr Trp Tyr His Lys Met
    370                 375

<210> 34
<211> 383
<212> PRT
<213> Ricinus communis

<400> 34
Met Gly Gly Gly Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
 1               5                  10                  15
Glu Ser Ser His Leu Lys Arg Ala Pro His Thr Lys Pro Pro Phe Thr
            20                  25                  30
Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys Phe Glu Arg Ser
        35                  40                  45
Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val Cys Leu Ser Phe
    50                  55                  60
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```
Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr Ile Ser Ser Pro
65                  70                  75                  80
Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe Gln Gly Cys Ile
                85                  90                  95
Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly His His Ala Phe
            100                 105                 110
Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu Ile Val His Ser
        115                 120                 125
Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130                 135                 140
His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                 150                 155                 160
Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu Asn Asn Pro Pro
                165                 170                 175
Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu Gly Trp Pro Leu
            180                 185                 190
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Arg Phe Ala Cys
        195                 200                 205
His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg Glu Arg Leu Gln
    210                 215                 220
Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr Phe Val Leu Tyr
225                 230                 235                 240
Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met Arg Ile Tyr Gly
                245                 250                 255
Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met Ile Thr Tyr Leu
            260                 265                 270
Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser Ser Glu Trp Asp
        275                 280                 285
Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Val Leu
    290                 295                 300
Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val Ala His His Leu
305                 310                 315                 320
Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile
                325                 330                 335
Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly Thr Pro Phe Tyr
            340                 345                 350
Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe Val Glu Pro Asp
        355                 360                 365
Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg Asn Lys Tyr
    370                 375                 380
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<210> 35
<211> 383
<212> PRT
<213> Lesquerella gracilis B

<400> 35

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Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                  10                  15
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
            20                  25                  30
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
        35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
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Leu Ser Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys Val
                85                  90                  95
Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala Phe
            100                 105                 110
Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His Ser
        115                 120                 125
Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130                 135                 140
His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro Pro
145                 150                 155                 160
Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro Leu
                165                 170                 175
Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro Leu
            180                 185                 190
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala Ser
        195                 200                 205
His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu Gln
    210                 215                 220
Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu Tyr
225                 230                 235                 240
Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr Gly
                245                 250                 255
Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe Leu
            260                 265                 270
Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Glu
        275                 280                 285
Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile Leu
    290                 295                 300
Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His Leu
305                 310                 315                 320
Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala Ile
                325                 330                 335
Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp Tyr
            340                 345                 350
Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro Asp
        355                 360                 365
Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 36
<211> 377
<212> PRT
<213> Stokesia laevis

<400> 36
Met Gly Ala Gly Gly Arg Met Ser Asp Leu Ser Asp Gly Lys Asn Leu
 1               5                  10                  15
Leu Lys Arg Val Pro Val Asp Pro Pro Phe Thr Leu Ser Asp Ile Lys
            20                  25                  30
Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser Val Ile Arg Ser Ser
        35                  40                  45
Tyr Tyr Val Val His Asp Leu Ile Val Ser Tyr Val Phe Phe Phe Leu
    50                  55                  60
Ala Thr Thr Tyr Ile Thr Val Leu Pro Ala Pro Leu Ala Tyr Ile Ala
65                  70                  75                  80
Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp
                85                  90                  95
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Val Ile Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp
100 105 110
Ile Asp Asp Thr Val Gly Phe Ile Leu His Ser Ala Leu Leu Thr Pro
115 120 125
Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Asn
130 135 140
Ser Leu Asp Asn Asp Glu Val Tyr Ile Pro Lys Arg Lys Ser Lys Val
145 150 155 160
Lys Ile Tyr Ser Lys Ile Leu Asn Asn Pro Pro Gly Arg Val Phe Thr
165 170 175
Leu Val Phe Arg Leu Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn
180 185 190
Ile Ser Gly Lys Lys Tyr Gln Arg Phe Ala Asn His Phe Asp Pro Leu
195 200 205
Ser Pro Ile Phe Thr Glu Arg Glu Arg Ile Gln Val Leu Val Ser Asp
210 215 220
Leu Gly Leu Leu Ala Val Ile Tyr Ala Ile Lys Leu Leu Val Ala Ala
225 230 235 240
Lys Gly Ala Val Trp Val Thr Cys Ile Tyr Gly Val Pro Val Leu Gly
245 250 255
Val Ser Val Phe Phe Val Leu Ile Thr Tyr Leu His His Thr His Leu
260 265 270
Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala
275 280 285
Leu Ser Thr Ile Asp Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His
290 295 300
Asp Val Thr His Thr His Val Leu His His Leu Ile Ser Tyr Ile Pro
305 310 315 320
His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly
325 330 335
Asp Tyr Tyr Lys Ile Asp Arg Thr Pro Ile Phe Lys Ala Met Trp Arg
340 345 350
Glu Ala Lys Glu Cys Ile Tyr Ile Glu Pro Asp Glu Asp Thr Glu His
355 360 365
Lys Gly Val Tyr Trp Tyr His Lys Met
370 375

<210> 37
<211> 387
<212> PRT
<213> Ricinus communis

<400> 37
Met Ala Ser Ser Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
1 5 10 15
Glu Lys Lys Gly Gly Ser Ser His Leu Lys Arg Ala Pro His Thr Lys
20 25 30
Pro Pro Phe Thr Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys
35 40 45
Phe Glu Arg Ser Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val
50 55 60
Cys Leu Ser Phe Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr
65 70 75 80
Ile Ser Ser Pro Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe
85 90 95
Gln Gly Cys Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly
100 105 110

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His His Ala Phe Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu
        115                 120                 125
Ile Val His Ser Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser
    130                 135                 140
His Arg Arg His His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val
145                 150                 155                 160
Phe Val Pro Lys Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu
                165                 170                 175
Asn Asn Pro Pro Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu
            180                 185                 190
Gly Trp Pro Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp
        195                 200                 205
Arg Phe Ala Cys His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg
    210                 215                 220
Glu Arg Leu Gln Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr
225                 230                 235                 240
Phe Val Leu Tyr Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met
                245                 250                 255
Arg Ile Tyr Gly Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met
            260                 265                 270
Ile Thr Tyr Leu Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser
        275                 280                 285
Ser Glu Trp Asp Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp
    290                 295                 300
Tyr Gly Val Leu Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val
305                 310                 315                 320
Ala His His Leu Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala
                325                 330                 335
Thr Lys Ala Ile Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly
            340                 345                 350
Thr Pro Phe Tyr Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe
        355                 360                 365
Val Glu Pro Asp Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg
    370                 375                 380
Asn Lys Tyr
385

<210> 38
<211> 377
<212> PRT
<213> Stokesia laevis

<400> 38
Met Ala Ser Ser Gly Arg Met Ser Asp Leu Ser Asp Gly Lys Asn Leu
 1              5                   10                  15
Leu Lys Arg Val Pro Val Asp Pro Pro Phe Thr Leu Ser Asp Ile Lys
            20                  25                  30
Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser Val Ile Arg Ser Ser
        35                  40                  45
Tyr Tyr Val Val His Asp Leu Ile Val Ser Tyr Val Phe Phe Phe Leu
    50                  55                  60
Ala Thr Thr Tyr Ile Thr Val Leu Pro Ala Pro Leu Ala Tyr Ile Ala
65                  70                  75                  80
Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp
                85                  90                  95
Val Ile Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp
            100                 105                 110
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```
Ile Asp Asp Thr Val Gly Phe Ile Leu His Ser Ala Leu Leu Thr Pro
        115                 120                 125
Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Asn
    130                 135                 140
Ser Leu Asp Asn Asp Glu Val Tyr Ile Pro Lys Arg Lys Ser Lys Val
145                 150                 155                 160
Lys Ile Tyr Ser Lys Ile Leu Asn Asn Pro Pro Gly Arg Val Phe Thr
                165                 170                 175
Leu Val Phe Arg Leu Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn
            180                 185                 190
Ile Ser Gly Lys Lys Tyr Gln Arg Phe Ala Asn His Phe Asp Pro Leu
        195                 200                 205
Ser Pro Ile Phe Thr Glu Arg Glu Arg Ile Gln Val Leu Val Ser Asp
    210                 215                 220
Leu Gly Leu Leu Ala Val Ile Tyr Ala Ile Lys Leu Leu Val Ala Ala
225                 230                 235                 240
Lys Gly Ala Val Trp Val Thr Cys Ile Tyr Gly Val Pro Val Leu Gly
                245                 250                 255
Val Ser Val Phe Phe Val Leu Ile Thr Tyr Leu His His Thr His Leu
            260                 265                 270
Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala
        275                 280                 285
Leu Ser Thr Ile Asp Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His
    290                 295                 300
Asp Val Thr His Thr His Val Leu His His Leu Ile Ser Tyr Ile Pro
305                 310                 315                 320
His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly
                325                 330                 335
Asp Tyr Tyr Lys Ile Asp Arg Thr Pro Ile Phe Lys Ala Met Trp Arg
            340                 345                 350
Glu Ala Lys Glu Cys Ile Tyr Ile Glu Pro Asp Glu Asp Thr Glu His
        355                 360                 365
Lys Gly Val Tyr Trp Tyr His Lys Met
    370                 375

<210> 39
<211> 387
<212> PRT
<213> Ricinus communis

<400> 39
Met Ala Ser Ser Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
 1              5                   10                  15
Glu Lys Lys Gly Gly Ser Ser His Leu Lys Arg Ala Pro His Thr Lys
            20                  25                  30
Pro Pro Phe Thr Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys
        35                  40                  45
Phe Glu Arg Ser Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val
    50                  55                  60
Cys Leu Ser Phe Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr
65                  70                  75                  80
Ile Ser Ser Pro Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe
                85                  90                  95
Gln Gly Cys Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly
            100                 105                 110
His His Ala Phe Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu
        115                 120                 125
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```
Ile Val His Ser Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser
    130                 135                 140
His Arg Arg His His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val
145                 150                 155                 160
Phe Val Pro Lys Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu
                165                 170                 175
Asn Asn Pro Pro Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu
            180                 185                 190
Gly Trp Pro Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp
        195                 200                 205
Arg Phe Ala Cys His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg
    210                 215                 220
Glu Arg Leu Gln Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr
225                 230                 235                 240
Phe Val Leu Tyr Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met
                245                 250                 255
Arg Ile Tyr Gly Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met
            260                 265                 270
Ile Thr Tyr Leu Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser
        275                 280                 285
Ser Glu Trp Asp Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp
    290                 295                 300
Tyr Gly Val Leu Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val
305                 310                 315                 320
Ala His His Leu Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala
                325                 330                 335
Thr Lys Ala Ile Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly
            340                 345                 350
Thr Pro Phe Tyr Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe
        355                 360                 365
Val Glu Pro Asp Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg
    370                 375                 380
Asn Lys Tyr
385

<210> 40
<211> 384
<212> PRT
<213> Artificial Sequence

<220>
<223> hypothetical sequence

<400> 40
Met Ala Ser Ser Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                  10                  15
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
            20                  25                  30
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
        35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95
Val Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala
```

```
            100                 105                 110
Phe Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His
        115                 120                 125
Ser Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175
Leu Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro
            180                 185                 190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195                 200                 205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
        355                 360                 365
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 41
<211> 374
<212> PRT
<213> Artificial Sequence

<220>
<223> hypothetical sequence

<400> 41
Met Ala Ser Ser Gly His Ser Arg Thr Ser Lys Lys Ser Val Met Glu
 1               5                   10                  15
Arg Val Ser Val Asp Pro Val Pro Phe Ser Leu Ser Asp Leu Lys Gln
            20                  25                  30
Ala Ile Pro Pro His Cys Phe Gln Arg Ser Val Ile Arg Ser Ser Tyr
        35                  40                  45
Tyr Val Val His Asp Leu Ile Ile Ala Tyr Ile Phe Tyr Phe Leu Ala
    50                  55                  60
Asp Lys Tyr Ile Pro Ile Leu Pro Ala Pro Leu Ala Tyr Leu Ala Trp
65                  70                  75                  80
Pro Leu Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp Ile
                85                  90                  95
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Leu Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp Val
            100                 105                 110
Asp Asp Thr Val Gly Phe Met Val His Ser Phe Leu Leu Thr Pro Tyr
        115                 120                 125
Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Ser Ser
    130                 135                 140
Ile Asp Asn Asp Glu Val Tyr Ile Pro Lys Ser Lys Ser Lys Leu Ala
145                 150                 155                 160
Leu Thr Tyr Lys Leu Leu Asn Asn Pro Pro Gly Arg Leu Leu Val Met
                165                 170                 175
Val Ile Met Phe Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn Ile
            180                 185                 190
Ser Gly Lys Lys Tyr Asp Arg Phe Ala Asn His Phe Asp Pro Met Ser
        195                 200                 205
Pro Ile Phe Lys Glu Arg Glu Arg Phe Gln Val Leu Leu Ser Asp Leu
    210                 215                 220
Gly Leu Leu Ala Val Phe Tyr Gly Ile Lys Val Ala Val Ala Lys Lys
225                 230                 235                 240
Gly Ala Ala Trp Val Ala Cys Met Tyr Gly Val Pro Met Leu Gly Val
                245                 250                 255
Phe Thr Leu Phe Asp Ile Ile Thr Tyr Leu His His Thr His Gln Ser
            260                 265                 270
Ser Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala Leu
        275                 280                 285
Ser Ala Ile Asp Arg Asp Phe Gly Phe Met Asn Ser Val Phe His Asp
    290                 295                 300
Val Thr His Thr His Val Met His His Met Phe Ser Tyr Ile Pro His
305                 310                 315                 320
Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Asn Thr Ile Ile Gly Asp
                325                 330                 335
Tyr Tyr Met Ile Asp Arg Thr Pro Ile Leu Lys Ala Leu Trp Arg Glu
            340                 345                 350
Ala Lys Glu Cys Met Tyr Ile Glu Pro Asp Ser Lys Arg Lys Gly Val
        355                 360                 365
Tyr Trp Tyr His Lys Leu
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<211> 377
<212> PRT
<213> Stokesia laevis

<400> 42
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            20                  25                  30
Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser Val Ile Arg Ser Ser
        35                  40                  45
Tyr Tyr Val Val His Asp Leu Ile Val Ser Tyr Val Phe Phe Phe Leu
    50                  55                  60
Ala Thr Thr Tyr Ile Thr Val Leu Pro Ala Pro Leu Ala Tyr Ile Ala
65                  70                  75                  80
Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp
                85                  90                  95
Val Ile Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp
            100                 105                 110
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Ile Asp Asp Thr Val Gly Phe Ile Leu His Ser Ala Leu Leu Thr Pro
        115                 120                 125
Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Asn
    130                 135                 140
Ser Leu Asp Asn Asp Glu Val Tyr Ile Pro Lys Arg Lys Ser Lys Val
145                 150                 155                 160
Lys Ile Tyr Ser Lys Ile Leu Asn Asn Pro Pro Gly Arg Val Phe Thr
                165                 170                 175
Leu Val Phe Arg Leu Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn
            180                 185                 190
Ile Ser Gly Lys Lys Tyr Gln Arg Phe Ala Asn His Phe Asp Pro Leu
        195                 200                 205
Ser Pro Ile Phe Thr Glu Arg Glu Arg Ile Gln Val Leu Val Ser Asp
    210                 215                 220
Leu Gly Leu Leu Ala Val Ile Tyr Ala Ile Lys Leu Leu Val Ala Ala
225                 230                 235                 240
Lys Gly Ala Val Trp Val Thr Cys Ile Tyr Gly Val Pro Val Leu Gly
                245                 250                 255
Val Ser Val Phe Phe Val Leu Ile Thr Tyr Leu His His Thr His Leu
            260                 265                 270
Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala
        275                 280                 285
Leu Ser Thr Ile Asp Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His
    290                 295                 300
Asp Val Thr His Thr His Val Leu His His Leu Ile Ser Tyr Ile Pro
305                 310                 315                 320
His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly
                325                 330                 335
Asp Tyr Tyr Lys Ile Asp Arg Thr Pro Ile Phe Lys Ala Met Trp Arg
            340                 345                 350
Glu Ala Lys Glu Cys Ile Tyr Ile Glu Pro Asp Glu Asp Thr Glu His
        355                 360                 365
Lys Gly Val Tyr Trp Tyr His Lys Met
    370                 375

<210> 43
<211> 92
<212> DNA
<213> Arabidopsis thaliana

<400> 43
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atcgccccta cgtcagctcc atctccagaa ac                                    92

<210> 44
<211> 1222
<212> DNA
<213> Arabidopsis thaliana

<400> 44
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atcgccccta cgtcagctcc atctccaggt ccgtcgcttc tcttccattt cttctcattt     120
tcgattttga ttcttatttc tttccagtag ctcctgctct gtgaatttct ccgctcacga     180
tagatctgct tatactcctt acattcaacc ttagatctgg tctcgattct ctgtttctct     240
gtttttttct tttggtcgag aatctgatgt ttgtttatgt tctgtcacca ttaataataa     300
tgaactctct cattcataca atgattagtt tctctcgtct acaaaacgat atgttgcatt     360
ttcacttttc ttcttttttt ctaagatgat ttgctttgac caatttgttt agatctttat     420
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tctattttat tttctggtgg gttggtggaa attgaaaaaa aaaaaacagc ataaattgtt 480
atttgttaat gtattcattt tttggctatt tgttctgggt aaaaatctgc ttctactatt 540
gaatctttcc tggatttttt actcctattg ggtttttata gtaaaaatac ataataaaag 600
gaaaacaaaa gttttataga ttctcttaaa ccccttacga taaaagttgg aatcaaaata 660
attcaggatc agatgctctt tgattgattc agatgcgatt acagttgcat ggcaaatttt 720
ctagatccgt cgtcacattt tattttctgt ttaaatatct aaatctgata tatgatgtcg 780
acaaattctg gtggcttata catcacttca actgttttct tttggctttg tttgtcaact 840
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attctcaacg caatcgtttt tgtatttctc acattatgcc gcttctctac tctttattcc 1020
ttttggtcca cgcatttctt atttgtggca atccctttca caacctgatt tcccactttg 1080
gatcatttgt ctgaagactc tcttgaatcg ttaccacttg tttcttgtgc atgctctgtt 1140
ttttagaatt aatgataaaa ctattccata gtcttgagtt ttcagcttgt tgattctttt 1200
gcttttggtt ttctgcagaa ac 1222

<210> 45
<211> 222
<212> DNA
<213> Arabidopsis thaliana

<400> 45
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tatgcttcgt tttaataatc ttattgtcca ttttgttgtg ttatgacatt ttggctgctc 120
attatgttat gtgggaagtt agtgttcaaa tgttttgtgt cggtattgtt cttctcatcg 180
ctgttttgtt gggatcgtag aaatgtgacc ttcggacagt aa 222

<210> 46
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 46
atgggaggtg gtggtcgcat g 21

<210> 47
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 47
ttaatacttg ttccggtacc a 21

<210> 48
<211> 24
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<220>
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<400> 48

atgggtgctg gtggaagaat aatg 24

<210> 49
<211> 33
<212> DNA
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<220>
<223> primer

<400> 49
tcataactta ttgaagtaat agtagacacc ttt 33

<210> 50
<211> 21
<212> DNA
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<220>
<223> primer

<400> 50
tcataactta ttgttgtaat a 21

<210> 51
<211> 17
<212> DNA
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<220>
<223> primer

<400> 51
gcaatccctc cccattg 17

<210> 52
<211> 27
<212> DNA
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<220>
<223> primer

<400> 52
tcacaattta tcataccaat aaacacc 27

<210> 53
<211> 32
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<220>
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<400> 53
atacaaaagc ttagagagag agattctgcg ga 32

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<211> 33
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<220>
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<400> 54
attcaatgca tgcaacataa tgagcagcca aaa                                    33

<210> 55
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<400> 55
attcaataag cttatgggtg caggtggaag aat                                    33

<210> 56
<211> 32
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<220>
<223> primer

<400> 56
atacaagcat gctcataact tattgttgta cc                                     32

<210> 57
<211> 40
<212> DNA
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<220>
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<400> 57
aagcaatggg gtgggatggc tttcttcaga tctcccaccg                             40

<210> 58
<211> 40
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cggtgggaga tctgaagaaa gccatcccac cccattgctt                             40

<210> 59
<211> 26
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<212> DNA
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<400> 59
gtcgacatac ttgttccggt accaga 26

<210> 60
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cgattgcttt cttcagatct cccaccgaga aaggcggtt 39

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<400> 61
aaccgccttt ctcggtggga gatctgaaga aagcaatcc 39

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<400> 62
gtcgactaac ttattgttgt aatagt 26

<210> 63
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<400> 63
gggattgctt tccttagatc tcccaccgag aaaggcggtt 40

<210> 64
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<400> 64
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<210> 65
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gtcgactaac ttattgttgt aatagt 26

<210> 66
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gggattgctt tcttcagatc tcccaccgag aaaggcggtt 40

<210> 68
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<400> 68
gtcgactcat aacttattgt tgtaat 26

<210> 69
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<212> DNA
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cggtgggaga tctgaagaaa gcaatccctc cccattgctt                          40

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<400> 70
aagcaatggg gagggattgc tttcttcaga tctcccaccg                          40

<210> 71
<211> 26
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<220>
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<400> 71
gtcgaccaat ttatgatacc aataaa                                         26

<210> 72
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atacaaaagc ttataatggg aggtggtggt cgcat                               35

<210> 73
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<400> 73
atacaaggat ccttaatact tgttccggta cc                                  32

<210> 74
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<400> 75
atacaaaagc ttataatggg tgctggtgga agaat 35

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<400> 76
atacaaggat cctcataact tattgttgta at 32

<210> 77
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atacaaaagc ttataatgta cccatacgat gttcc 35

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<400> 78
atgagagctc gtttaaacga ttttaatgtt tagc 34

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<211> 30
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<210> 80
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<400> 81
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<400> 83
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<210> 84
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<210> 85

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<210> 86
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atgaggcgcg ccctttctct gacttttaac atcc 34

<210> 87
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<400> 87
actggcatgc gtattgagat tgttttataa tatatg 36

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agatctctac catgggtgcc cacggccatg g 31

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Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser
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Ile Pro Arg Ser Phe Ser Tyr Leu Ile Ser Asp Ile Ile Ile Ala Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Leu Ser Tyr Leu Ala Trp Pro Leu Tyr Trp Ala Cys Gln Gly Cys Val
                85                  90                  95
Leu Thr Gly Ile Trp Val Ile Ala His Glu Cys Gly His His Ala Phe
            100                 105                 110
Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Leu Ile Phe His Ser
        115                 120                 125
Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130                 135                 140
His Ser Asn Thr Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                 150                 155                 160
Gln Lys Ser Ala Ile Lys Trp Tyr Gly Lys Tyr Leu Asn Asn Pro Leu
                165                 170                 175
Gly Arg Ile Met Met Leu Thr Val Gln Phe Val Leu Gly Trp Pro Leu
            180                 185                 190
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala Cys
        195                 200                 205
His Phe Phe Pro Asn Ala Pro Ile Tyr Asn Asp Arg Glu Arg Leu Gln
    210                 215                 220
Ile Tyr Leu Ser Asp Ala Gly Ile Leu Ala Val Cys Phe Gly Leu Tyr
225                 230                 235                 240
Arg Tyr Ala Ala Ala Gln Gly Met Ala Ser Met Ile Cys Leu Tyr Gly
                245                 250                 255
Val Pro Leu Leu Ile Val Asn Ala Phe Leu Val Leu Ile Thr Tyr Leu
            260                 265                 270
Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Ser Glu Trp Asp
        275                 280                 285
Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg Asp Tyr Gly Ile Leu
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Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His Leu
305                 310                 315                 320
Phe Ser Thr Met Pro His Tyr Asn Ala Met Glu Ala Thr Lys Ala Ile
                325                 330                 335
Lys Pro Ile Leu Gly Asp Tyr Tyr Gln Phe Asp Gly Thr Pro Trp Tyr
            340                 345                 350
Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Ile Tyr Val Glu Pro Asp
        355                 360                 365
Arg Glu Gly Asp Lys Lys Gly Val Tyr Trp Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 126
<211> 384
<212> PRT
<213> Brassica napus

<400> 126
Met Gly Ala Gly Gly Arg Met Gln Val Ser Pro Pro Ser Lys Lys Ser
 1               5                  10                  15
Glu Thr Asp Thr Ile Lys Arg Val Pro Cys Glu Thr Pro Pro Phe Thr
            20                  25                  30
Val Gly Glu Leu Lys Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser
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        35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Ile Trp Asp Ile Ile Ile Ala Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Thr Tyr Phe Pro Leu Leu Pro His Pro
65                  70                  75                  80
Leu Ser Tyr Phe Ala Trp Pro Leu Tyr Trp Ala Cys Gln Gly Cys Val
                85                  90                  95
Leu Thr Gly Val Trp Val Ile Ala His Glu Cys Gly His His Ala Phe
            100                 105                 110
Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Leu Ile Phe His Ser
        115                 120                 125
Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130                 135                 140
His Ser Asn Thr Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                 150                 155                 160
Lys Lys Ser Asp Ile Lys Trp Tyr Gly Lys Tyr Leu Asn Asn Pro Leu
                165                 170                 175
Gly Arg Thr Val Met Leu Thr Val Gln Phe Thr Leu Gly Trp Pro Leu
            180                 185                 190
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Gly Phe Ala
        195                 200                 205
Cys His Phe His Pro Asn Ala Pro Ile Tyr Asn Asp Arg Glu Arg Leu
    210                 215                 220
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240
Phe Arg Tyr Ala Ala Ala Gln Gly Val Ala Ser Met Val Cys Phe Tyr
                245                 250                 255
Gly Val Pro Leu Leu Ile Val Asn Gly Leu Leu Val Leu Ile Thr Tyr
            260                 265                 270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Ser Glu Trp
        275                 280                 285
Asp Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
Leu Phe Ser Thr Met Pro His Tyr His Ala Met Glu Ala Thr Lys Ala
                325                 330                 335
Ile Lys Pro Ile Leu Gly Glu Tyr Tyr Gln Phe Asp Gly Thr Pro Val
            340                 345                 350
Val Lys Ala Met Trp Arg Glu Ala Lys Glu Cys Ile Tyr Val Glu Pro
        355                 360                 365
Asp Arg Gln Gly Glu Lys Lys Gly Val Phe Trp Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 127
<211> 383
<212> PRT
<213> Glycine max

<400> 127
Met Gly Ala Gly Gly Arg Thr Asp Val Pro Pro Ala Asn Arg Lys Ser
 1               5                  10                  15
Glu Val Asp Pro Leu Lys Arg Val Pro Phe Glu Lys Pro Gln Phe Ser
            20                  25                  30
Leu Ser Gln Ile Lys Lys Ala Ile Pro Pro His Cys Phe Gln Arg Ser
        35                  40                  45
Val Leu Arg Ser Phe Ser Tyr Val Val Tyr Asp Leu Thr Ile Ala Phe
```

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    50                  55                  60
Cys Leu Tyr Tyr Val Ala Thr His Tyr Phe His Leu Leu Pro Gly Pro
65                  70                  75                  80
Leu Ser Phe Arg Gly Met Ala Ile Tyr Trp Ala Val Gln Gly Cys Ile
                85                  90                  95
Leu Thr Gly Val Trp Val Ile Ala His Glu Cys Gly His His Ala Phe
            100                 105                 110
Ser Asp Tyr Gln Leu Leu Asp Asp Ile Val Gly Leu Ile Leu His Ser
        115                 120                 125
Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130                 135                 140
His Ser Asn Thr Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                 150                 155                 160
Gln Lys Ser Cys Ile Lys Trp Tyr Ser Lys Tyr Leu Asn Asn Pro Pro
                165                 170                 175
Gly Arg Val Leu Thr Leu Ala Val Thr Leu Thr Leu Gly Trp Pro Leu
            180                 185                 190
Tyr Leu Ala Leu Asn Val Ser Gly Arg Pro Tyr Asp Arg Phe Ala Cys
        195                 200                 205
His Tyr Asp Pro Tyr Gly Pro Ile Tyr Ser Asp Arg Glu Arg Leu Gln
    210                 215                 220
Ile Tyr Ile Ser Asp Ala Gly Val Leu Ala Val Val Tyr Gly Leu Phe
225                 230                 235                 240
Arg Leu Ala Met Ala Lys Gly Leu Ala Trp Val Val Cys Val Tyr Gly
                245                 250                 255
Val Pro Leu Leu Val Val Asn Gly Phe Leu Val Leu Ile Thr Phe Leu
            260                 265                 270
Gln His Thr His Pro Ala Leu Pro His Tyr Thr Ser Ser Glu Trp Asp
        275                 280                 285
Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg Asp Tyr Gly Ile Leu
    290                 295                 300
Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His Leu
305                 310                 315                 320
Phe Ser Thr Met Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile
                325                 330                 335
Lys Pro Ile Leu Gly Glu Tyr Tyr Arg Phe Asp Glu Thr Pro Phe Val
            340                 345                 350
Lys Ala Met Trp Arg Glu Ala Arg Glu Cys Ile Tyr Val Glu Pro Asp
        355                 360                 365
Gln Ser Thr Glu Ser Lys Gly Val Phe Trp Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 128
<211> 383
<212> PRT
<213> Sesamum indicum

<400> 128
Met Gly Ala Gly Gly Arg Met Ser Asp Pro Thr Thr Lys Asp Glu Gln
 1               5                  10                  15
Lys Lys Asn Pro Leu Gln Arg Val Pro Tyr Ala Lys Pro Pro Phe Thr
            20                  25                  30
Leu Gly Asp Ile Lys Lys Ala Ile Pro Pro His Cys Phe Glu Arg Ser
        35                  40                  45
Val Ser Arg Ser Phe Ser Tyr Val Val Tyr Asp Leu Val Ile Val Phe
    50                  55                  60
Leu Leu Tyr Tyr Ile Ala Thr Ser Tyr Phe His Leu Leu Pro Ser Pro
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65                  70                  75                  80
Tyr Cys Tyr Leu Ala Trp Pro Ile Tyr Trp Ala Val Gln Gly Cys Val
                85                  90                  95
Cys Thr Gly Ile Trp Val Ile Ala His Glu Cys Gly His His Ala Phe
            100                 105                 110
Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Leu Ile Leu His Ser
        115                 120                 125
Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130                 135                 140
His Ser Asn Thr Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                 150                 155                 160
Pro Lys Ser Arg Val Ser Trp Tyr Ser Lys Tyr Leu Asn Asn Pro Leu
                165                 170                 175
Gly Arg Val Ile Thr Leu Val Val Thr Leu Thr Leu Gly Trp Pro Leu
            180                 185                 190
Tyr Leu Leu Phe Asn Val Ser Gly Arg Pro Tyr Asn Arg Phe Ala Cys
        195                 200                 205
His Phe Asp Pro Tyr Gly Pro Ile Tyr Asn Asp Arg Glu Arg Leu Gln
    210                 215                 220
Ile Phe Ile Ser Asp Ala Gly Ile Ile Ala Ala Val Cys Val Leu Tyr
225                 230                 235                 240
Arg Val Ala Leu Val Lys Gly Leu Ala Trp Leu Val Cys Val Tyr Gly
                245                 250                 255
Val Pro Leu Leu Ile Val Asn Gly Phe Leu Val Leu Ile Thr Phe Leu
            260                 265                 270
Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Ser Glu Trp Asp
        275                 280                 285
Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg Asp Tyr Gly Val Leu
    290                 295                 300
Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Thr His His Leu
305                 310                 315                 320
Phe Ser Thr Met Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile
                325                 330                 335
Lys Pro Ile Leu Gly Gln Tyr Tyr Gln Phe Asp Gly Thr Pro Phe Tyr
            340                 345                 350
Lys Ala Met Trp Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro Asp
        355                 360                 365
Glu Ser Thr Pro Asp Lys Gly Val Phe Trp Tyr Lys Asn Lys Phe
    370                 375                 380

<210> 129
<211> 9
<212> PRT
<213> Human influenza virus

<400> 129
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
 1               5

<210> 130
<211> 12
<212> DNA
<213> Ricinus communis

<400> 130
agaaaggagg aa                                                         12
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